COUNTY OF SAN DIEG0, DEPARTMENT OF PUBLIC WORKS

PLAN PREPARATION GUIDELINES

January 2005

PLAN PREPARATION GUIDE

The text and examples of The Plan Preparation Guide have been prepared for use by both engineers and technicians in the preparation of project plans for the County of San Diego, Department of Public Works, Engineering Services Section.

WORK IN PROGRESS

1) GENERAL

A) CADD DRAWINGS

All plans prepared for the County of San Diego Department of Public Works shall be designed and submitted in AutoDesk Land Desktop 3 format. DPW CADD standards shall be maintained for all submittals. Information may be obtained at:

http://www.sdcounty.ca.gov/dpw/permits-forms/engstd.htm.

B) DRAWING MATERIALS

Project plans shall be plotted on matte finish drafting film using black ink. The sheet size shall be 36" x 24".

C) BORDER

The County of San Diego Department of Public Works **Title Block** shall be named **tbbase.dwg** in the project directory and used as the border for all plan sheets. The associated AutoCAD drawing file, **Tbbasei.dwg**, shall be used to identify the individual sheets of the project set. **TitleBlock-DPW.dwt** and **tbbasei.dwg** are available at:

http://www.sdcounty.ca.gov/dpw/permits-forms/engstd.htm.

D) STANDARD PLANS & STANDARD DRAWINGS

Standard Plans and Standard Drawings shall not be altered and must be submitted as a part of the project plans. Where the details shown on the Standard Plans or Standard Drawings do not fit a particular situation, details for the particular situation shall be shown on the applicable sheet of the project plan (i.e. construction details, drainage details, etc.).

2) EXAMPLES OF PROJECT PLANS, INSTRUCTIONS, AND CHECKLISTS

GENERAL INFORMATION

The example sheets contained herein were obtained from several different sources. They may not necessarily reflect desirable designs or current design standards. The examples are presented in the reduced (50% reduction) format size. Explanatory notes on the preparation of plan sheets are included and in most instances are outlined.

Lines and lettering (refer to DPW CADD Standards) shall be of adequate size and weight to produce legible reproductions in the 50% reduction format.

FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

PLANS	BY	DATE
DESIGNED	JJL	12/04
CHECKED	KB	12/04
DELINEATED	JJL	12/04

This Firm Name
This Firm Address

REGISTERED CIVIL ENGINEER _____ DATE _____

SEAL – APPROPRIATE DISCIPLINE (THIS SHEET)
TEMPLATE NAME: EngineerStamp.dwt
FILE NAME: M–STAMP–CIVIL.dwg
EXTERNAL REFERENCE (0,0,0) 1:1 IN PAPER SPACE

SHEET TRIM LINE

CURRENT DPW TITLE BLOCK
TEMPLATE NAME: TitleBlock–DPW.dwt
FILE NAME: TBBASE.dwg
EXTERNAL REFERENCE (0,0,0) 1:1 IN PAPER SPACE

CURRENT DPW INFORMATION BLOCK
FILE NAME: TBBASEI.dwg
BLOCK INSERT (0,0,0) 1:1 IN PAPER SPACE

MODEL SPACE VIEW PORT
SCALED RELATIVE TO THE PAPER SPACE

TYPICAL BASE SHEETT
CURRENT DPW TITLE BLOCK printed on 24" X 36" trimmed film.
Leave 3/8" blank space around the inside of the plan layout area.
Never extend the drawing or notes beyond the TITLE BLOCK border.

STRUCTURAL PLAN NUMBER (IF APPLICABLE)

ENGINEERING DISCIPLINE SET
e.g. STRUCTURAL PLAN SET
3S OF 6S
(IF APPLICABLE)

SP123

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

NO DATA EXCEPT SHEET 01 AVAILABLE FOR LOGOS (EXCEPT SHEET 01)

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
340 N. 1730 E.
CONST. COMPL. _____
FIELD REVISIONS _____

TYPICAL SAN DIEGO COUNTY ROAD
In The Vicinity of
SHEET TITLE

SCALE: HOR. NONE VERT. NONE
W.A. R12345 R.S. 1234
BRIDGE PLAN 1B OF 1B
SHEET 3 OF 33 SHEETS

C–SH03–B01.dwg
K:_PlanPrepGuide\CAD Files 2005
12/31/04
11:17

24"
36"

TYPICAL BASE SHEET DETAIL

TBBASE ATTRIBUTE VALUES:

Scales: Provide the Horizontal and Vertical scale. If viewports with different scales are used, indicate the scale for each viewport on the plan.
W.A. : Work Authorization Number
R.S.: Road Survey Number

tbbasei ATTRIBUTE VALUES:
Reserved for specific discipline sheets.

TBBASE ATTRIBUTE VALUES:
Indicate California coordinates (lower left corner of County 200 scale topographic map on which the project starts, NAD27).
Construction completion date and field revision date to be added upon completion of the project.

SP123

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
340 N. 1730 E.
CONST. COMPL.
FIELD REVISIONS

TYPICAL SAN DIEGO COUNTY ROAD
In The Vicinity of
SHEET TITLE

SCALE: HOR. NONE VERT. NONE
W.A. R12345 R.S. 1234
BRIDGE 1B OF 1B
SHEET 4 OF 33 SHEETS

11:17 12/31/04

Indicate design revisions made to plans subsequent to signing by the Engineer and prior to advertising contract.

TBBASE ATTRIBUTES:
Project Name and the vicinity location (fit each on one line of text) . The attribute values on these lines will be identical on every sheet of the project plan set.

TBBASEi ATTRIBUTE VALUES:
Unique on each sheet

B) TITLE SHEET

INSTRUCTION

The Title Sheet of the plan set will include: the County of San Diego DPW Cover Sheet, the DPW Title Block, and Title Block Information Block. The information on the title sheet shall be limited to that information in the "Plan Preparation Guidelines". Features such as typical sections, construction details, drainage details, standard abbreviations, legends and construction notes shall not be shown on the Title Sheet.

TYPICAL SHEET INDEX

The Index of Sheets shall list all sheets contained in the project plans. The sheet name shown on the Index of Sheets shall match the name shown on the individual sheet. A typical set of project plans may include the following:

ROAD PROJECTS

INDEX OF SHEETS

TITLE SHEET
NOTES, LEGEND & PLAN OVERVIEW
TYPICAL SECTIONS (ROAD PROJECTS)
PLAN AND PROFILE SHEETS
TRAFFIC SIGNAL
CONSTRUCTION DETAILS
DRAINAGE PLAN, PROFILES AND DETAILS
DETOUR PLAN
STAGE CONSTRUCTION
TRAFFIC CONTROL PLAN
RETAINING WALL PLANS AND DETAILS
WATER POLLUTION CONTROL PLAN

BRIDGE PROJECTS

INDEX OF SHEETS

CIVIL PLANS
TITLE SHEET
NOTES AND LEGENDS
PROJECT IMPACT AREA (PIA) MAP
TRAFFIC CONTROL PLAN
CONSTRUCTION STAGING PLAN
DETOUR ROAD PLAN & PROFILE
APPROACH ROAD PLAN & PROFILE
CHANNEL GRADING PLAN
SIGNING & STRIPING PLAN

BRIDGE PLANS
BRIDGE REMOVAL PLAN
GENERAL PLAN
DECK CONTOURS
FOUNDATION PLAN
ABUTMENTS
WINGWALLS
BENTS
TYPICAL SECTION
GIRDER LAYOUT
GIRDER REINFORCEMENT
LOG OF TEST BORINGS

UTILITY PLAN
EXISTING UTILITY
PROPOSED UTILITY

CHECKLIST

- ❑ Vicinity Map (project site)
- ❑ California Coordinates, NAD 27 (show coordinates of lower left corner of the standard 200 Scale County topographic sheet on which the project begins)
- ❑ Index of Sheets
- ❑ Project Location (show on county map in upper right corner of sheet)
- ❑ Length of Project
- ❑ Work Authorization Number (indicate on Tbbase)
- ❑ Scales (or labeled no scale).
- ❑ Road Survey Number - N/A if not applicable (indicate on Tbbase)
- ❑ Interim Improvements
- ❑ Community Name
- ❑ General Notes
- ❑ Routing Review Block (except for Final Submittals)
- ❑ County Signature Block

COVER SHEET READY TO INSERT (X-REF) INTO THE TITLE SHEET (PAPER SPACE), TEXT HEIGHTS AND LINE WEIGHTS ARE NOT TO BE MODIFIED (DPW CADD STANDARDS), INCLUDE ONLY THE INFORMATION SHOWN HEREIN. DO NOT ADD INFORMATION OR DETAILS. DO NOT REARRANGE INFORMATION SHOWN.

INDEX OF SHEETS

COUNTY OF SAN DIEGO, CALIFORNIA
DEPARTMENT OF PUBLIC WORKS

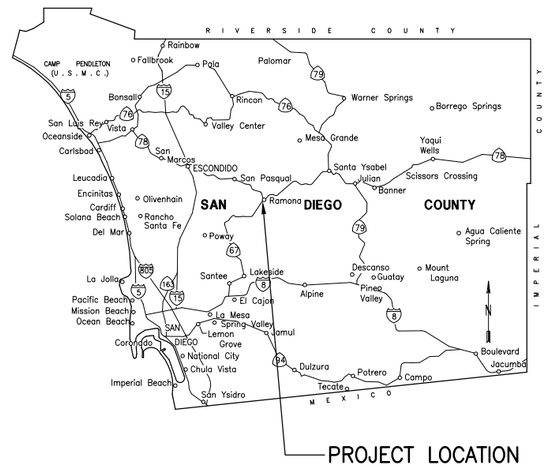
PLANS FOR CONSTRUCTION OF

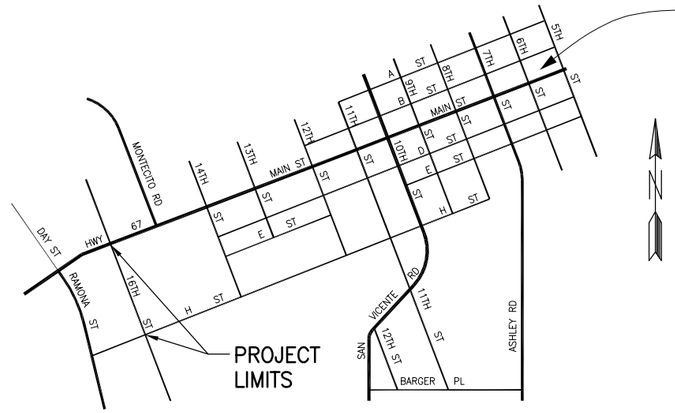
16TH STREET ROAD IMPROVEMENTS

RS 2380

In The Vicinity of Ramona

LENGTH = 0.3 Miles





VICINITY MAP TO SHOW "PROJECT SITE" OR "PROJECT LIMITS". MAP LIMITS ARE TO EXTEND TO NEAREST MAJOR ROAD.

VICINITY MAP

NO SCALE

"GENERAL NOTES" TO REMAIN AS SHOWN DO NOT EDIT.

GENERAL NOTES:

ATTENTION IS DIRECTED TO THE POSSIBLE EXISTENCE OF UNDERGROUND UTILITY FACILITIES NOT KNOWN OR IN A LOCATION DIFFERENT FROM THAT WHICH IS SHOWN ON THE PLANS OR IN THE SPECIAL PROVISIONS. THE CONTRACTOR SHALL TAKE STEPS TO ASCERTAIN THE EXACT LOCATION OF ALL UNDERGROUND FACILITIES PRIOR TO PERFORMING WORK THAT MAY DAMAGE SUCH FACILITIES OR INTERFERE WITH THEIR SERVICE. FORTY-EIGHT HOURS BEFORE EXCAVATING, THE CONTRACTOR SHALL VERIFY THE LOCATION OF UNDERGROUND FACILITIES BY CONTACTING UNDERGROUND SERVICE ALERT AT TELEPHONE 1-800-422-4133.

OPERATORS OF GRAVITY SEWER SYSTEMS AND CERTAIN OTHER UTILITIES, WHO ARE NOT MEMBERS OF UNDERGROUND SERVICE ALERT, MUST BE INDIVIDUALLY CONTACTED.

COUNTY SIGNATURE BLOCK – SHEET 1 ONLY. CHECK FOR CORRECT APPROVAL NAME.

RECOMMENDED BY: _____ DATE _____

_____ DATE _____

APPROVED BY:

_____ DATE _____

DOUGLAS M. ISBELL, COUNTY ENGINEER

ROUTING SUBMITTAL BLOCK SHEET 1 ONLY.

☐ ADA Compliance	☐ CADD Standards
☐ Construction Engineering	☐ Environmental Services
☐ Field Engineering	☐ Field Surveys
☐ Material Laboratory	☐ Design Team Leader
☐ Real Property	☐ Traffic Engineering
☐ Utility Coordinator	☐ ROW Coordinator
☐ Rtha Coordinator	☐ Special Districts
☐ School District	☐ Utility Company
☐ Other_____	

Reviewed By: _____ Date: _____

COUNTY OF SAN DIEGO DPW DESIGN SECTION

DATE _____

REVIEWED BY: _____

FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

PLANS	BY	DATE
DESIGNED	JJL	12/04
CHECKED	KB	12/04
DELINEATED	JJL	12/04

Registered engineer
No. 123456
Exp.
CIVIL
STATE OF CALIFORNIA

This Firm Name
This Firm Address

REGISTERED CIVIL ENGINEER _____ DATE _____

INDEX OF SHEETS

COUNTY OF SAN DIEGO, CALIFORNIA
DEPARTMENT OF PUBLIC WORKS

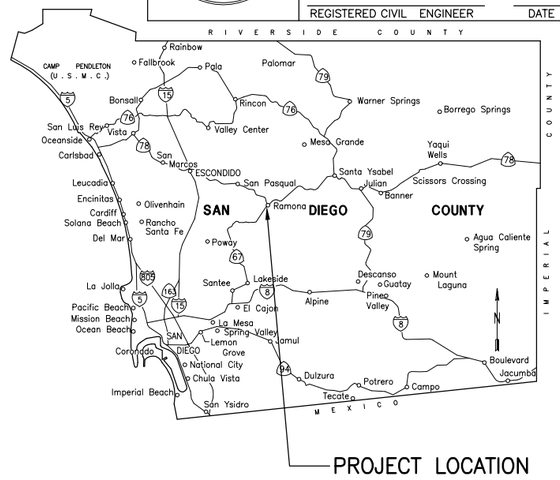
PLANS FOR CONSTRUCTION OF

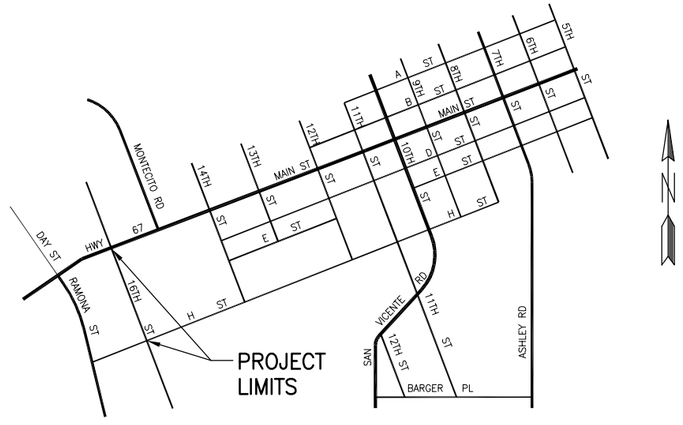
16TH STREET ROAD IMPROVEMENTS

RS 2380

In The Vicinity of Ramona

LENGTH = 0.3 Miles





VICINITY MAP

NO SCALE

GENERAL NOTES:

ATTENTION IS DIRECTED TO THE POSSIBLE EXISTENCE OF UNDERGROUND UTILITY FACILITIES NOT KNOWN OR IN A LOCATION DIFFERENT FROM THAT WHICH IS SHOWN ON THE PLANS OR IN THE SPECIAL PROVISIONS. THE CONTRACTOR SHALL TAKE STEPS TO ASCERTAIN THE EXACT LOCATION OF ALL UNDERGROUND FACILITIES PRIOR TO PERFORMING WORK THAT MAY DAMAGE SUCH FACILITIES OR INTERFERE WITH THEIR SERVICE. FORTY-EIGHT HOURS BEFORE EXCAVATING, THE CONTRACTOR SHALL VERIFY THE LOCATION OF UNDERGROUND FACILITIES BY CONTACTING UNDERGROUND SERVICE ALERT AT TELEPHONE 1-800-422-4133.

OPERATORS OF GRAVITY SEWER SYSTEMS AND CERTAIN OTHER UTILITIES, WHO ARE NOT MEMBERS OF UNDERGROUND SERVICE ALERT, MUST BE INDIVIDUALLY CONTACTED.

COUNTY OF SAN DIEGO DPW DESIGN SECTION
REVIEWED BY: _____ DATE _____

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

RECOMMENDED BY: _____ DATE _____
_____ DATE _____

APPROVED BY: _____ DATE _____
DOUGLAS M. ISBELL, COUNTY ENGINEER

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
340 N. 1730 E.
CONST. COMPL. _____
FIELD REVISIONS _____

TYPICAL SAN DIEGO COUNTY ROAD
In The Vicinity of
TITLE SHEET

SCALE: HOR. NONE VERT. NONE
W.A. R12345 R.S. 1234
SHEET 1 OF 33 SHEETS

C-SH07-TS01.dwg
H:_PlanPrepGuide\CAD Files 2005
12:53 12/30/04

C) NOTES, LEGEND AND PLAN OVERVIEW

INSTRUCTIONS

Include the following:

- Regional Standard Drawings List
- Caltrans Standard Plans List
- Provide all notes and legends
- Horizontal and Vertical Control data
- Road projects - include plan overview of the project

−1 0 1 2 3 4 5 6 7 8 9 10 FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES

PROJECT STANDARD SPECIFICATIONS

STATE OF CALIFORNIA STANDARD SPECIFICATIONS FOR CONSTRUCTION OF LOCAL STREETS AND ROADS, July 2002

PROJECT STANDARD PLANS

CALTRANS STANDARD PLANS, July 2002 (XXXX / XXXX — CALTRANS STANDARD PLAN SHEET NUMBER; DETAIL NUMBER)

A10A–B	A87
A20A–B	B3–1
A73A	B3–8
A77A	D75A
A77B	RS2
A77D	T13
A77F	
A77J	

SAN DIEGO REGIONAL STANDARD DRAWINGS, April 2003 (XXXX / XXXX — REGIONAL STANDARD DRAWING SHEET NUMBER; DETAIL NUMBER)

D–40
D–75

DETAIL DRAWING (X / X X — DETAIL NUMBER; SHEET DRAWN; SHEET TAKEN)

SURVEY NOTES

HORIZONTAL CONTROL

ALL BEARINGS, DISTANCES, STATIONS AND COORDINATES ARE GRID AND BASED ON AND BASED ON THE NORTH AMERICAN DATUM OF 1983 (1991.35) CALIFORNIA COORDINATE SYSTEM, ZONE 6. CONTROL IS BASED ON B ORDER CONTROL POINT 'FAR', 1ST ORDER CONTROL POINT 'FIT–2', AND 1ST ORDER CONTROL POINT 'RCAJCCS1'.

AT STATION 'JULA XP7':

λ = −0−21−56.87 AND THE COMBINATION FACTOR = 0.99997318

$$\text{GROUND DISTANCE} = \frac{\text{GRID DISTANCE}}{\text{COMBINATION FACTOR}}$$

BENCH MARK

DESIGNATION: EC142

DESCRIPTION: STANDARD BRASS DISC SET IN CONCRETE MONUMENT STAMPED EC 142

LOCATION: AT INTERSECTION OF PETITIE LN AND JULIAN AVE. 36' E OF CL OF PETITIE LN AND 33' N OF CL OF JULIAN AVE, 3' FROM CURVE CORNER OF BLOCK WALL.

ELEVATION: 404.610

DATUM: VERTICAL DATUM IS NGVD 1929.

CITY OF SAN DIEGO WATER NOTES

1 THE PIPELINE MAY REMAIN IN OPERATION (LIVE) DURING THE ENTIRE CONSTRUCTION PROCESS. CONTACT CITY OF SAN DIEGO WATER OPERATIONS DIVISION AT: (619) 527–3955 THREE (3) WORKING DAYS PRIOR TO START OF ANY EXCAVATION OPERATION.

2 THE CONSTRUCTION CREW SHALL FOLLOW THE CONSTRUCTION PROCEDURES AND SPECIFICATIONS NOTED HEREON TO PREVENT DEFLECTION OR ROTATION OF PIPE JOINTS, AND TO PREVENT DAMAGE TO THE PIPELINE DURING THE CONSTRUCTION PROCESS.

3 NOTIFY THE ENGINEER IMMEDIATELY IF ANY CHANGES TO THE CONSTRUCTION PROCEDURES ARE REQUIRED, OR IF ANY INCONSISTENCIES ARE FOUND BETWEEN THESE PLANS AND ACTUAL FIELD CONDITIONS.

4 REFERENCE CITY OF SAN DIEGO DWG. NO. 3710–W SHEETS 8 AND 9 OF 10 FOR 48–INCH PIPELINE.

5 VERIFY THE LOCATIONS BY POT HOLING IF NECESSARY ALL UTILITIES PRIOR TO COMMENCING WORK. CONTACT UNDERGROUND SERVICE ALERT (800) 422–4133 FOR FIELD LOCATION OF UTILITIES AT LEAST TWO WORKING DAYS PRIOR TO EXCAVATING. NOTIFY CITY OF SAN DIEGO –– WATER OPERATIONS DIVISION AT 668–2073 THREE (3) WORKING DAYS PRIOR TO CONSTRUCTION OR FOR A PRECONSTRUCTION MEETING.

6 TAKE ALL PRECAUTIONARY MEASURES NECESSARY TO PROTECT EXISTING IMPROVEMENTS THAT ARE TO REMAIN IN PLACE FROM DAMAGE.

7 THE CITY IS TO PROVIDE QUALIFIED ENGINEERING INSPECTOR AT SITE ON A FULL TIME BASIS FOR DURATION OF THE CONSTRUCTION AT THE CITY OF SAN DIEGO WATER PIPELINE CROSSING.

REGISTERED PROFESSIONAL ENGINEER — Registered engineer — No. 123456 — Exp. — CIVIL — STATE OF CALIFORNIA

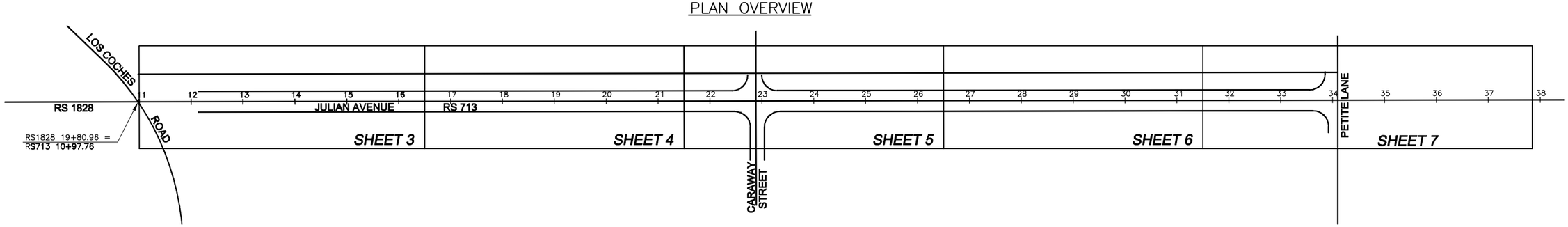
PLANS	BY	DATE
DESIGNED	SC	11/04
CHECKED	MC	11/04
DELINEATED	TE	11/04

This Firm Name
This Firm Address

REGISTERED CIVIL ENGINEER _____ DATE _____

100% SUBMITTAL - NOT FOR CONSTRUCTION

PLAN OVERVIEW



COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX: 340 N. 1730 E.
CONST. COMPL. _____
FIELD REVISIONS _____

TYPICAL SAN DIEGO COUNTY ROAD
In The Vicinity of
NOTES, LEGEND & PLAN OVERVIEW

SCALE: HOR. NONE VERT. NONE
W.A. R12345 R.S. 1234
SHEET 2 OF 33 SHEETS

C–SH09–AB01.dwg
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D) CROSS SECTION

CHECKLIST

- ❑ Scales (or labeled no scale).
- ❑ Layout Line (road survey, centerline, etc.)
- ❑ Cross Slope (percent)
- ❑ Type, Class and Thickness of Pavement, Base and Subbase (in feet, do not use inches)
- ❑ Seal Coats
- ❑ AC Dikes With Type Identification
- ❑ Curb and Gutter (include dimensions not shown on standard plans)
- ❑ Basic Right of Way Widths, Stationing Limits Below Each Section, Smallest Station at Top of Sheet
- ❑ Pertinent Existing Features
- ❑ Profile Grade Point, Widths of Pavement, Shoulders, Medians, Sidewalk, Ditches, Etc., in Feet (do not use inches) - indicate limits of variable dimensions
- ❑ Saw Cut Line
- ❑ Cut/Fill Slopes (catch point, slope ratio)

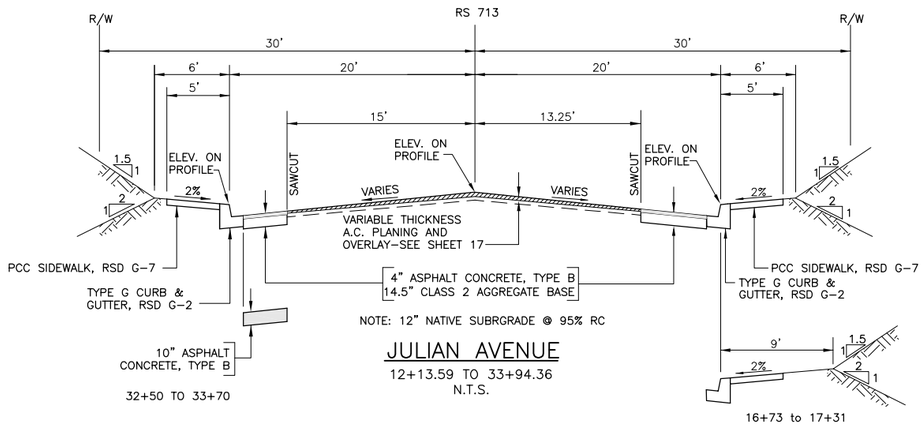
PLANS	BY	DATE
DESIGNED	SC	11/04
CHECKED	MC	12/04
DELINEATED	TE	11/04

REGISTERED PROFESSIONAL ENGINEER
Registered engineer
No. 123456
Exp.
CIVIL
STATE OF CALIFORNIA

This Firm Name
This Firm Address

REGISTERED CIVIL ENGINEER DATE

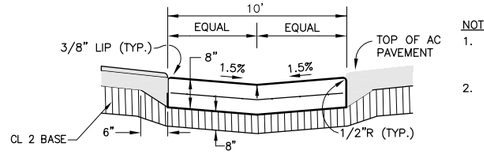
100% SUBMITTAL - NOT FOR CONSTRUCTION



JULIAN AVENUE
12+13.59 TO 33+94.36
N.T.S.

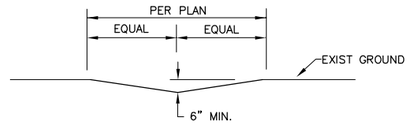
32+50 TO 33+70

16+73 to 17+31

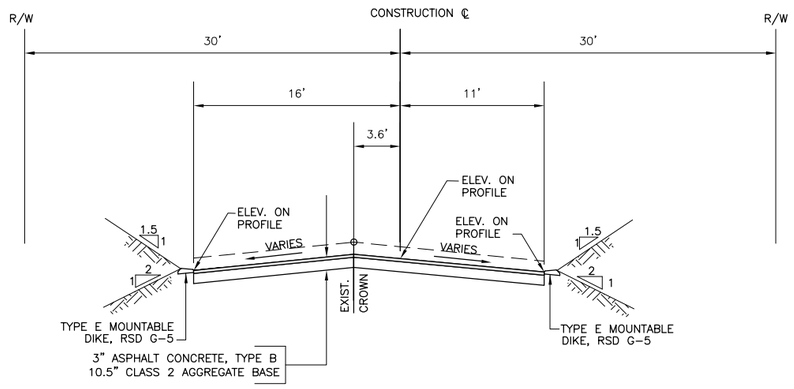


CONC CROSS GUTTER (2 3|16)
N.T.S.

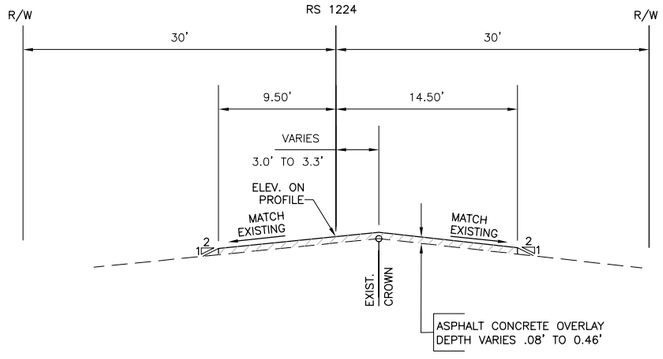
NOTES:
1. PROVIDE WEAKENED PLANE JOINTS/EXPANSION JOINTS PER STD DWG G-10.
2. PLACE WWF ON CHAIRS TO ASSURE MID-SLAB PLACEMENT.



GRADED DITCH / SWALE (3 3|16)
N.T.S.



CARAWAY STREET SOUTH
0+28.50 TO 1+13.50
N.T.S.



CARAWAY STREET NORTH
24+13.78 TO 24+63.84
N.T.S.

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COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
340 N. 1730 E.
CONST. COMPL.
FIELD REVISIONS

TYPICAL SAN DIEGO COUNTY ROAD
In The Vicinity of
TYPICAL CROSS SECTION

SCALE: HOR. NONE VERT. NONE
W.A. R12345 R.S. 1234
SHEET 3 OF 33 SHEETS

E) PLAN AND PROFILE

PLAN INSTRUCTIONS

Only those existing topographic features which affect construction, and which are essential for field orientation of the plans shall be shown (as an external reference). In urban areas, contour lines generally need not be shown.

Show all centerline data: Stationing equations; Tangent distances and bearings; and curve stations, radius, length, delta.

Show proposed: edge of pavement (or lip of gutter and top of curb); edge of shoulders (or back of walk); all drainage structures; survey monuments to be set; fences, guard railing, barriers, and all other facilities to be constructed. Solid lines shall be used for proposed construction items (refer to “DPW CADD Standards”).

Indicate the work to be performed:

Existing facilities:

- Use phrases similar to "Abandon" or "Remove", “Join/Match Exist”, “Protect In Place”, “Reset”, “Relocate”, “Reconstruct”.

New construction:

- Do not use "Construct", "Place”, etc., these terms are superfluous.
- Include all necessary dimensions, station and offset.
- Toe of fill and top of cuts (except where grading is minimal).

PLAN CHECKLIST

- ❑ Scales (or labeled no scale).
- ❑ Layout Line (road survey, centerline, etc.)
- ❑ Standard North Arrow
- ❑ Underground Utilities (sewer, water, gas, and telephone)
- ❑ Utility Poles
- ❑ Match Lines
- ❑ Bearings
- ❑ Bench Mark
- ❑ Right of Way Widths
- ❑ Roadway Widths
- ❑ Standard Legend (show on each plan sheet)
- ❑ Driveways (station, width, surfacing)
- ❑ Survey Monuments
- ❑ Pedestrian Ramps
- ❑ Existing Features (shaded lines, dashed lines)

PROFILE INSTRUCTIONS

On combined Plan and Profile sheets, the profile stationing shall line up with the stationing in the plan portion.

Extend the original ground line a few stations beyond the beginning and end of the project.

Elevations and stations are to be shown at BVCs, EVCs, PRVCs, PCVCs, equations, paving notches, broken profiles for datum changes, and each edge of the sheet on profile grade.

Vertical curve lengths and tangent gradients are to be shown. Gradients must be shown at points of reverse or compound vertical curvature.

PROFILE CHECKLIST

- ❑ Elevations Labeled at Both Edges of Sheet
- ❑ Profile Lines With Label and Grade in Percent
- ❑ Superelevation Diagram (show directly below the corresponding profile where sufficient space is available)
- ❑ Original Ground Lines With Label
- ❑ Vertical Curve Lengths
- ❑ Elevations and Stations (shown at BVC, EVC, PRVC, and PCVC)
- ❑ Utility Crossings
- ❑ Equations

SUPERELEVATION DIAGRAM INSTRUCTIONS

The following should be included:

- Stationing.
- Superelevation in percent.
- Axis of rotation (0% line).
- Curve points - Vertical lines should indicate the location of all horizontal curves BCs and ECs.

Certain combinations of profile grade line, vertical curves, superelevation transitions, and variable pavement widths may produce undesirable pavement edge profiles. Where these combinations occur, it is essential to plot edge of pavement profiles and graphically adjust bumps and drainage pockets. These should be drawn to an exaggerated vertical scale and plotted separate from the project plans, and submitted to the Resident Engineer and Field Surveys for use in staking.

FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

−1 0 1 2 3 4 5 6 7 8 9 10

REGISTERED PROFESSIONAL ENGINEER
Registered engineer
No. 123456
Exp.
CIVIL
STATE OF CALIFORNIA

PLANS	BY	DATE
DESIGNED	JJL	12/04
CHECKED	KB	12/04
DELINEATED	JJL	12/04

This Firm Name
This Firm Address

REGISTERED CIVIL ENGINEER DATE

IMAGE AREA
PLAN LAYOUT

DPW PROFILE GRID BLOCK
INSERTED 1:1 IN PAPER SPACE

THIS AREA FOR PROFILE

ELEVATIONS

EDIT

THIS AREA FOR SUPERELEVATION DIAGRAMS

EDIT STATIONS

ELEVATIONS

EDIT

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COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

CONSULTANT LOGO
(OPTIONAL)

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
340 N. 1730 E.
CONST. COMPL.
FIELD REVISIONS

TYPICAL SAN DIEGO COUNTY ROAD
In The Vicinity of
PLAN AND PROFILE

SCALE: HOR. NONE VERT. NONE
W.A. R12345 R.S. 1234
SHEET 13 OF 33 SHEETS

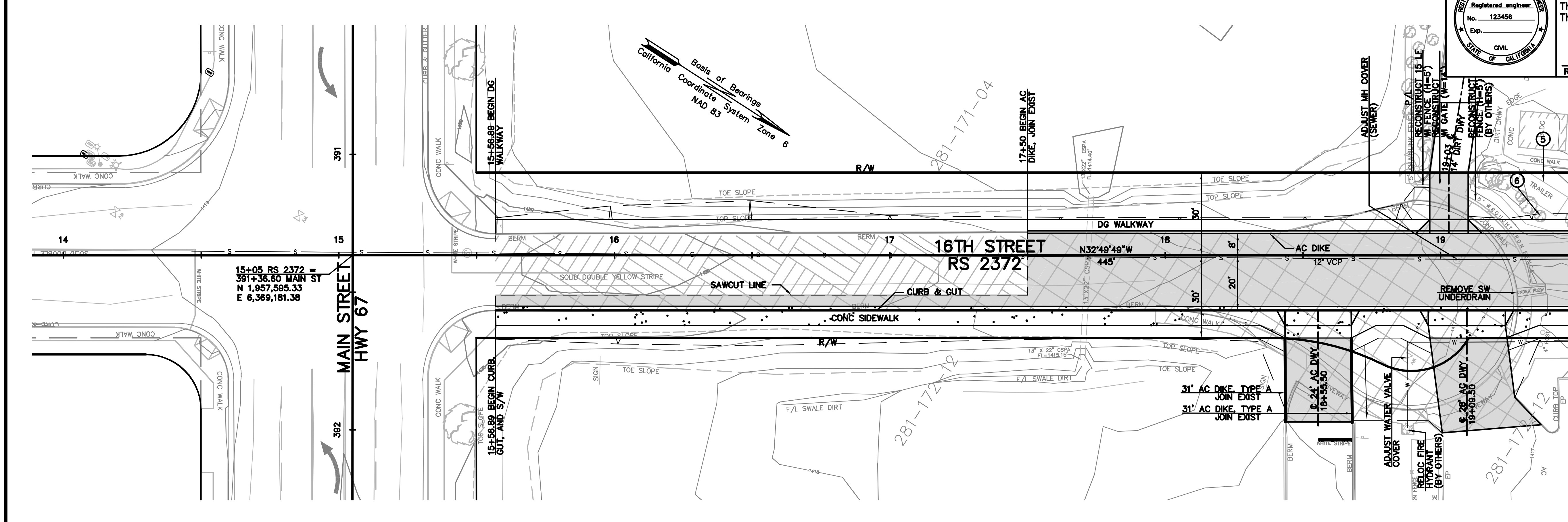
FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

PLANS	BY	DATE
DESIGNED	JJL	12/04
CHECKED	KB	12/04
DELINEATED	JJL	12/04

REGISTERED PROFESSIONAL ENGINEER — Registered engineer No. 123456 Exp. ______ CIVIL — STATE OF CALIFORNIA

This Firm Name
This Firm Address

REGISTERED CIVIL ENGINEER ______ DATE ______



CONSTRUCTION NOTES

1. CURB RAMP TYPE A, RSD G-27 SEE DETAIL 4/4/10
2. CURB RAMP TYPE B, RSD G-27 SEE DETAIL 4/4/10
3. RELOCATE UTILITY POLE (BY OTHERS)
4. 5' AC PAVING BEHIND S/W
5. REMOVE EXIST IMPROVEMENTS WITHIN R/W (BY OTHERS)
6. REMOVE TREE

STORM DRAIN NOTE:

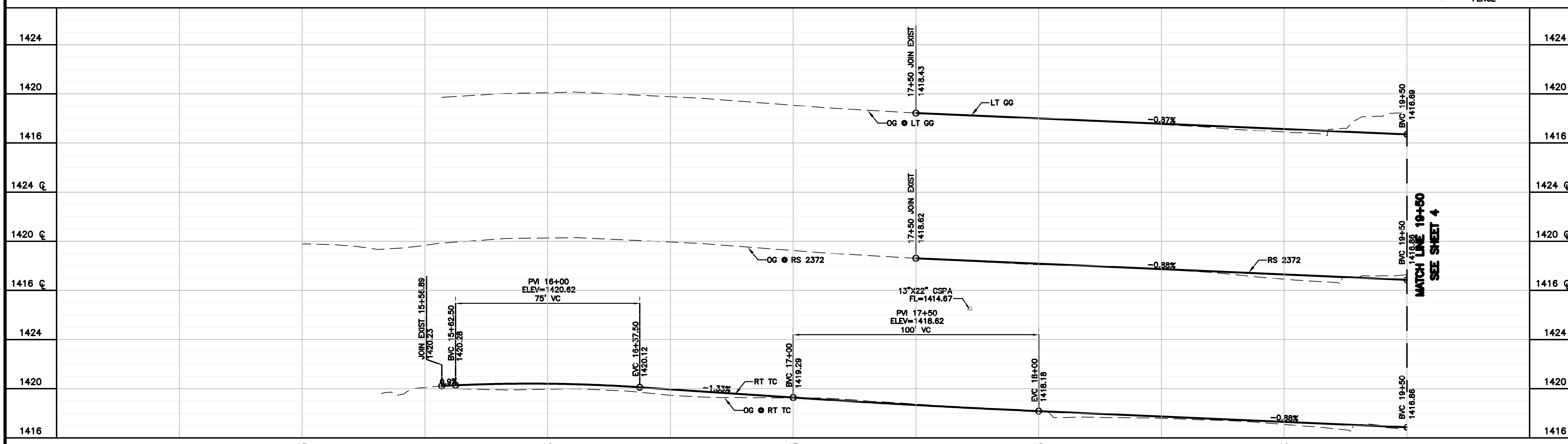
SEE SHEET 8 FOR STORM DRAIN PLAN AND PROFILE

NOTE: SEE SHEET 12 FOR AREA OF POTENTIAL EFFECT

MATCH LINE 19+50 SEE SHEET 4

LEGEND

- AC ON AB
- 3" AC ON NATIVE
- CONCRETE
- REMOVE CONCRETE/AC
- AC OVERLAY
- SAWCUT LINE
- DAYLIGHT/SLOPE LINE
- FENCE



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COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

	REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
340 N. 1730 E.
CONST. COMPL. ______
FIELD REVISIONS ______

TYPICAL SAN DIEGO COUNTY ROAD
In The Vicinity of
PLAN AND PROFILE - 16TH STREET

SCALE: HOR. 1"=20' VERT. 1"=4'
W.A. R12345 R.S. 1234
SHEET 3 OF 33 SHEETS

16:56 12/31/04

Basis of Bearings
California Coordinate System Zone 6
NAD 83

FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

PLANS	BY	DATE
DESIGNED	SC	11/04
CHECKED	MC	12/04
DELINEATED	TE	11/04

REGISTERED PROFESSIONAL ENGINEER
Registered engineer
No. 123456
Exp.
CIVIL
STATE OF CALIFORNIA

This Firm Name
This Firm Address

REGISTERED CIVIL ENGINEER _____ DATE _____

CONSTRUCTION NOTES:

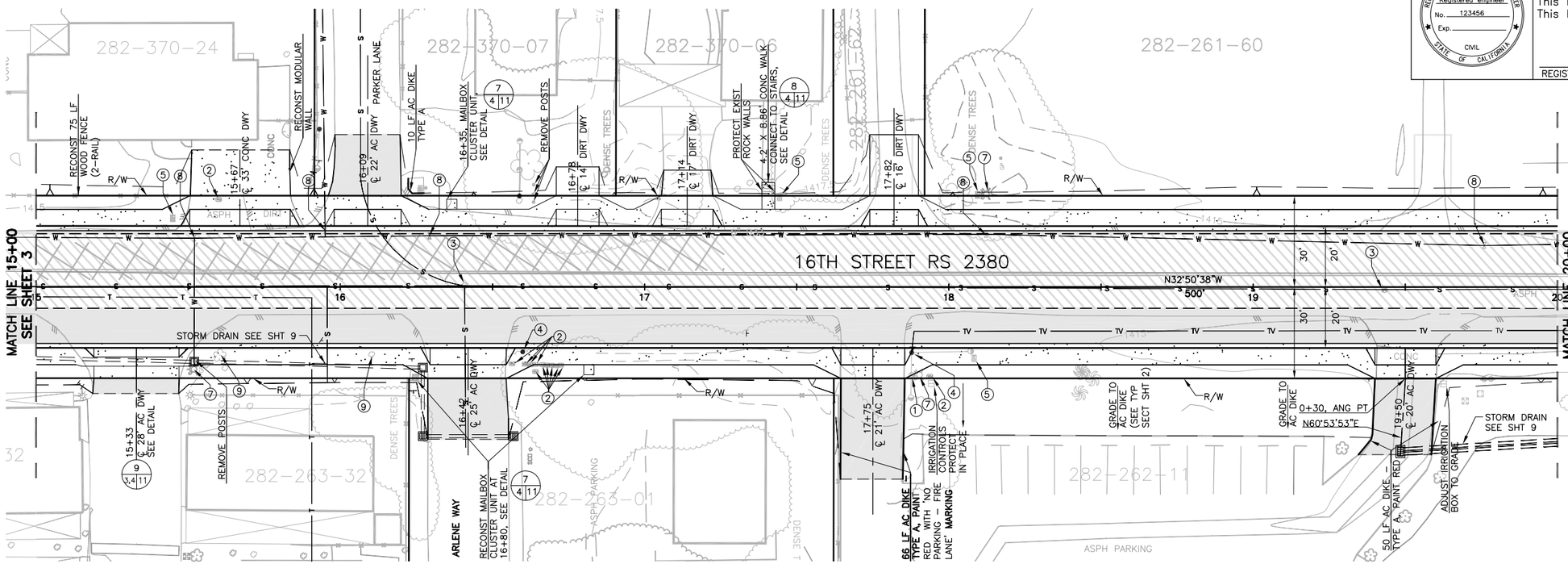
1. RECONST UTILITY BOX (BY OTHERS)
2. RELOCATE WATER METER (BY OTHERS)
3. ADJUST MH COVER (SEWER)
4. RELOCATE POWER POLE (BY OTHERS)
5. RECONST MAILBOX
6. ADJUST SEWER CLEAN OUT
7. RELOCATE FIRE HYDRANT (BY OTHERS)
8. ADJUST WATER VALVE COVER
9. REMOVE TREE

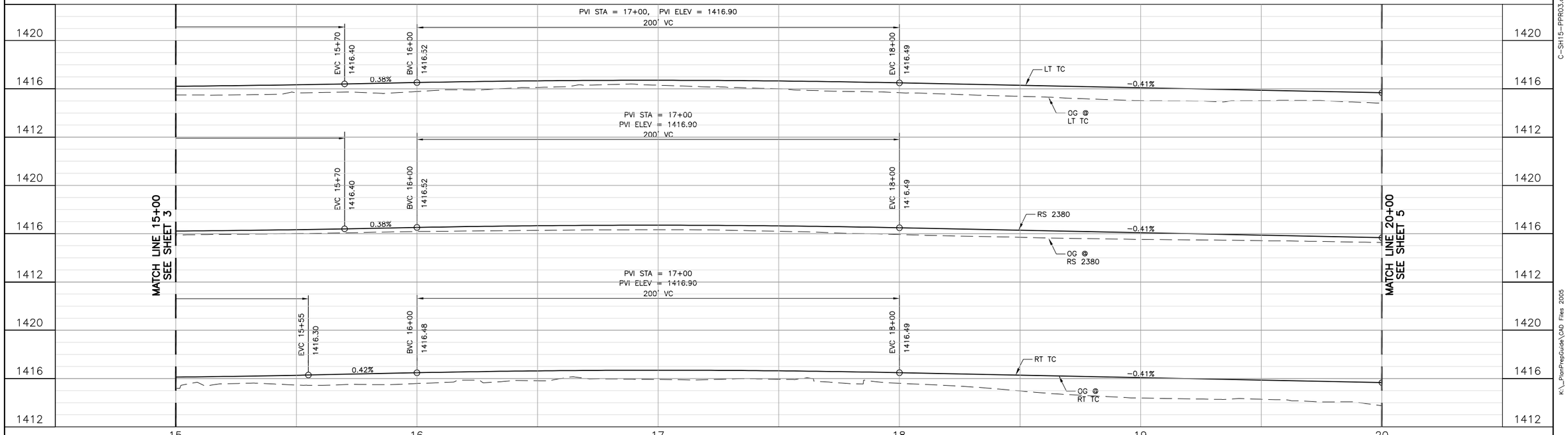
STORM DRAIN NOTE:

SEE SHEETS 8–11 FOR STORM DRAIN PLAN, PROFILE & DETAILS

LEGEND

- AC ON AB
- AC OVERLAY
- CONCRETE
- AC PLANING SEE SHEET 11
- UTILITY POLE
- SAWCUT
- DAYLIGHT/SLOPE LINE
- T EXIST TELEPHONE
- W EXIST WATER
- TV EXIST TV
- S EXIST SEWER





REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
340 N. 1730 E.
CONST. COMPL. _____
FIELD REVISIONS _____

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

TYPICAL SAN DIEGO COUNTY ROAD
In The Vicinity of
PLAN AND PROFILE

SCALE: HOR. 1"=20' VERT. 1"=4'
W.A. R12345 R.S. 1234
SHEET 4 OF 33 SHEETS

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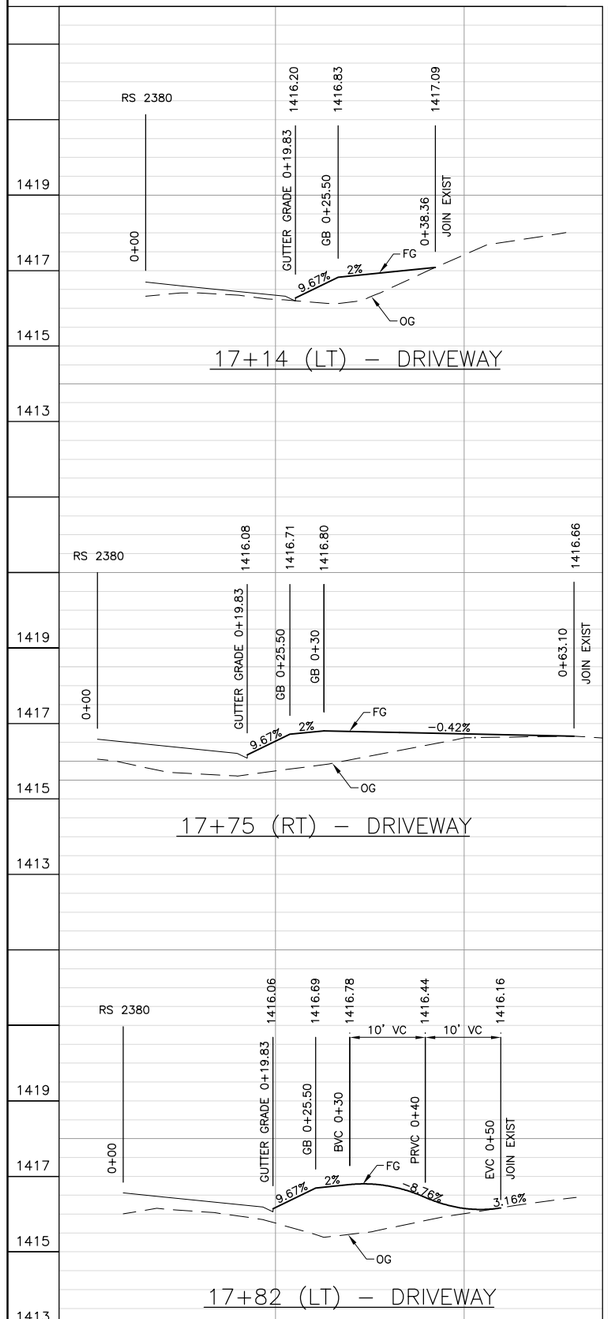
F) DRIVEWAY AND CURB RETURN PROFILES

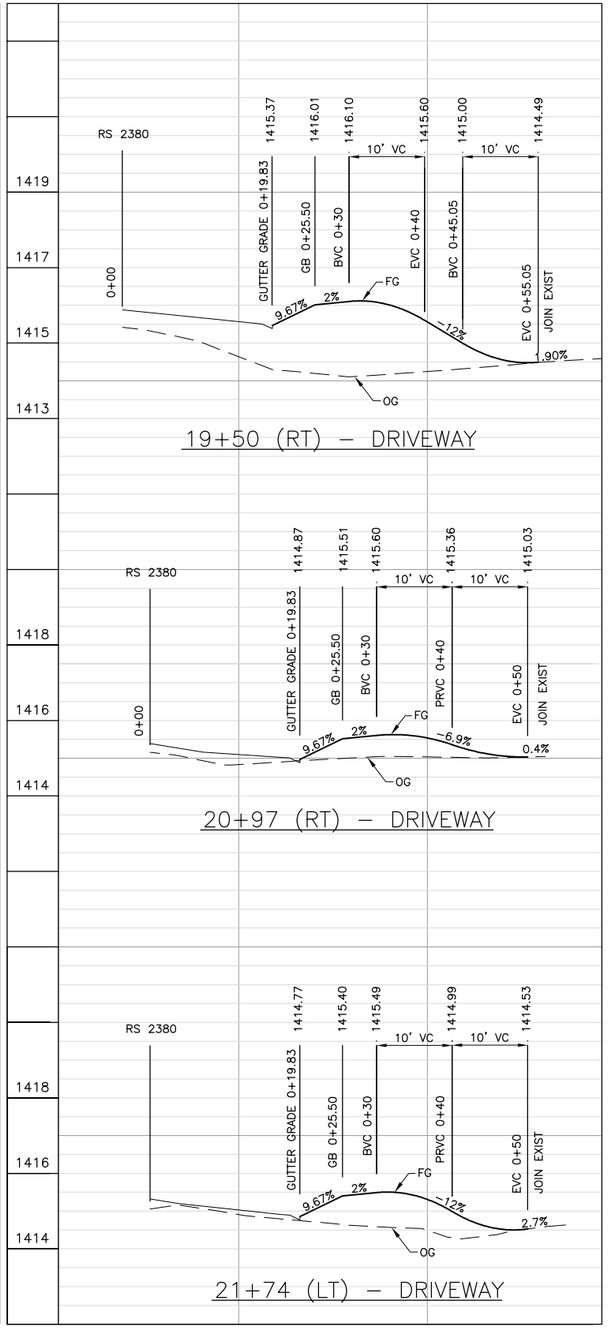
CHECKLIST

- ❑ Scales (horizontal, vertical)
- ❑ Original Ground
- ❑ Slope (percent)
- ❑ Type, Class and Thickness of Pavement and Base
- ❑ Stationing Below Each Section, Smallest Station at Top of Sheet

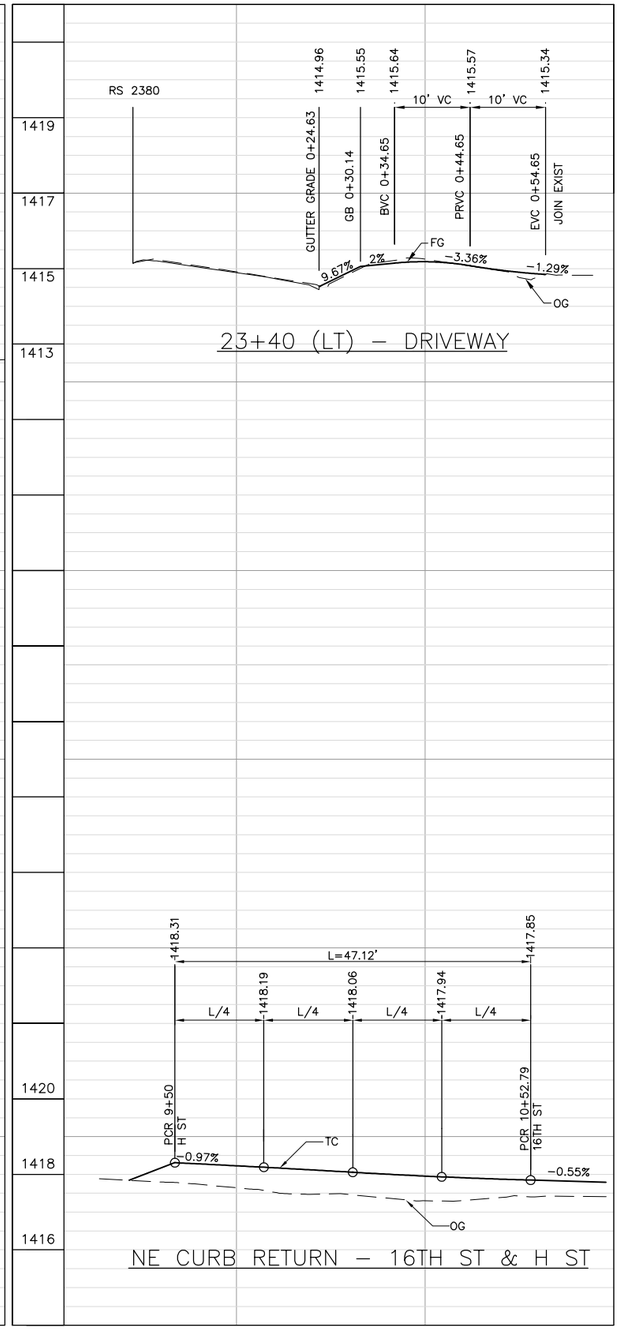
FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES



17+14 (LT) – DRIVEWAY



19+50 (RT) – DRIVEWAY



23+40 (LT) – DRIVEWAY

17+75 (RT) – DRIVEWAY

20+97 (RT) – DRIVEWAY

17+82 (LT) – DRIVEWAY

21+74 (LT) – DRIVEWAY

NE CURB RETURN – 16TH ST & H ST

PLANS	BY	DATE
DESIGNED	SC	11/04
CHECKED	MC	12/04
DELINEATED	TE	11/04

REGISTERED PROFESSIONAL ENGINEER
Registered engineer
No. 123456
Exp.
CIVIL
STATE OF CALIFORNIA

This Firm Name
This Firm Address

REGISTERED CIVIL ENGINEER DATE

DRIVEWAY SCHEDULE

STATION	L/R	SURFACE	WIDTH (FT.)	LENGTH (FT.)	DRIVEWAY TYPE
17+14	L	DIRT	17'	8.36'	G-14A
17+75	R	A.C.	21'	33.10'	G-14A
17+82	L	DIRT	16'	20'	G-14A
19+50	R	A.C.	20'	25.05'	G-14A
20+97	R	DIRT	15'	20'	G-14A
21+74	L	A.C.	24'	20'	G-14A
23+40	L	A.C.	24'	24.65'	G-14A

NOTE:
A.C. DRIVEWAYS SHALL BE 3" A.C./4" CLASS 2 A.B. OVER 6" NATIVE SUBGRADE COMPACTED TO 95% RC.

DRIVEWAY LENGTH IS MEASURED FROM R/W.

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COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
340 N. 1730 E.
CONST. COMPL.
FIELD REVISIONS

TYPICAL SAN DIEGO COUNTY ROAD
In The Vicinity of
PROFILE - DRIVEWAY & CURB RETURN

SCALE: HOR. 1"=10' VERT. 1"=2'
W.A. R12345 R.S. 1234
SHEET 7 OF 33 SHEETS

G) STORM DRAIN PLAN AND PROFILE

PLAN INSTRUCTIONS

Separate Storm Drain Plan Sheets (if required) are prepared on duplicate skeletons of the base plan sheets.

PROFILE INSTRUCTIONS

Where storm drain facilities are to be installed or constructed, strom drain profiles shall be prepared for inclusion in the plans. A profile of each proposed storm drain system shall be plotted on the Storm Drain Profile Sheets. Each Storm Drain Profile Sheet shall contain the following data for each storm drain system:

- Type, size, length and location of culverts
- Culvert appurtenances (including but not limited to, headwalls, wingwalls, drainage inlets, flared end sections, inlet and outlet structures) shall be shown and labeled
- Original ground and finished grade profile
- All flow line elevations
- All underground utilities crossings
- Slope of the culvert shown in percent

−1 0 1 2 3 4 5 6 7 8 9 10

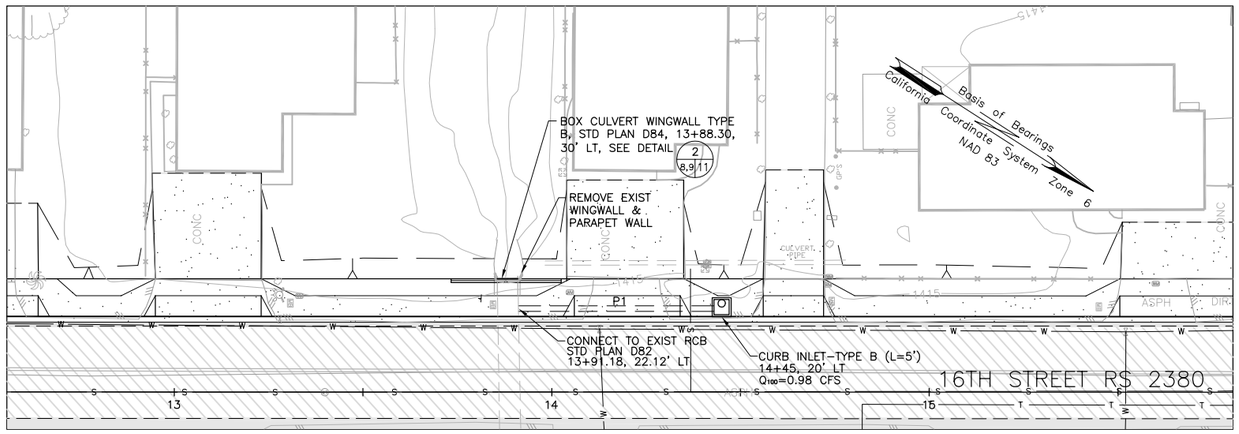
FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

REGISTERED PROFESSIONAL ENGINEER
Registered engineer
No. 123456
Exp.
CIVIL
STATE OF CALIFORNIA

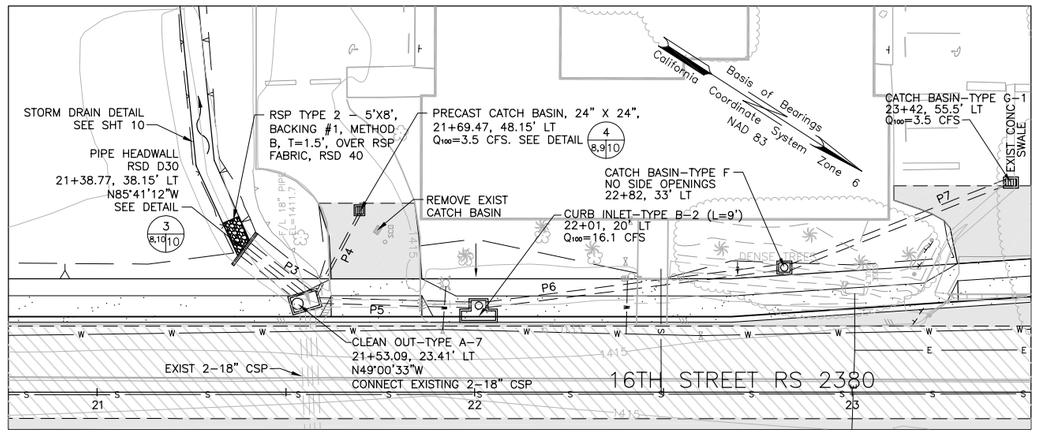
PLANS	BY	DATE
DESIGNED	EM	12/04
CHECKED	JJL	12/04
DELINEATED	EM	12/04

This Firm Name
This Firm Address

REGISTERED CIVIL ENGINEER DATE



PLAN



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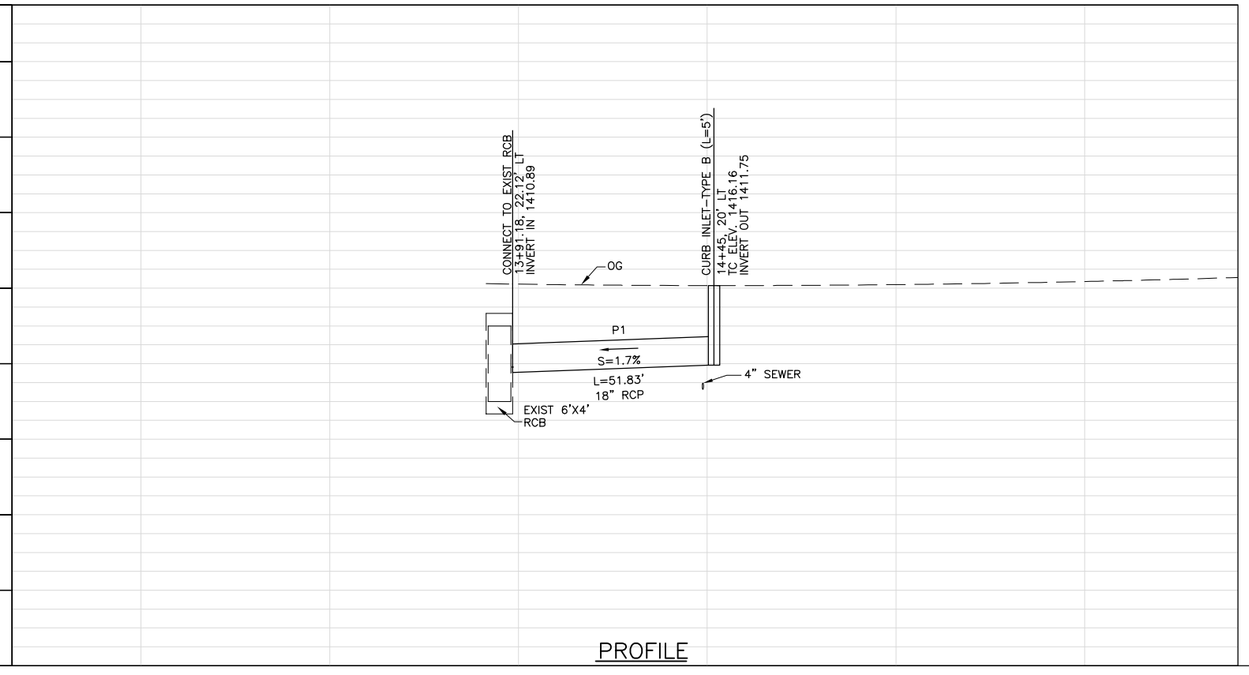

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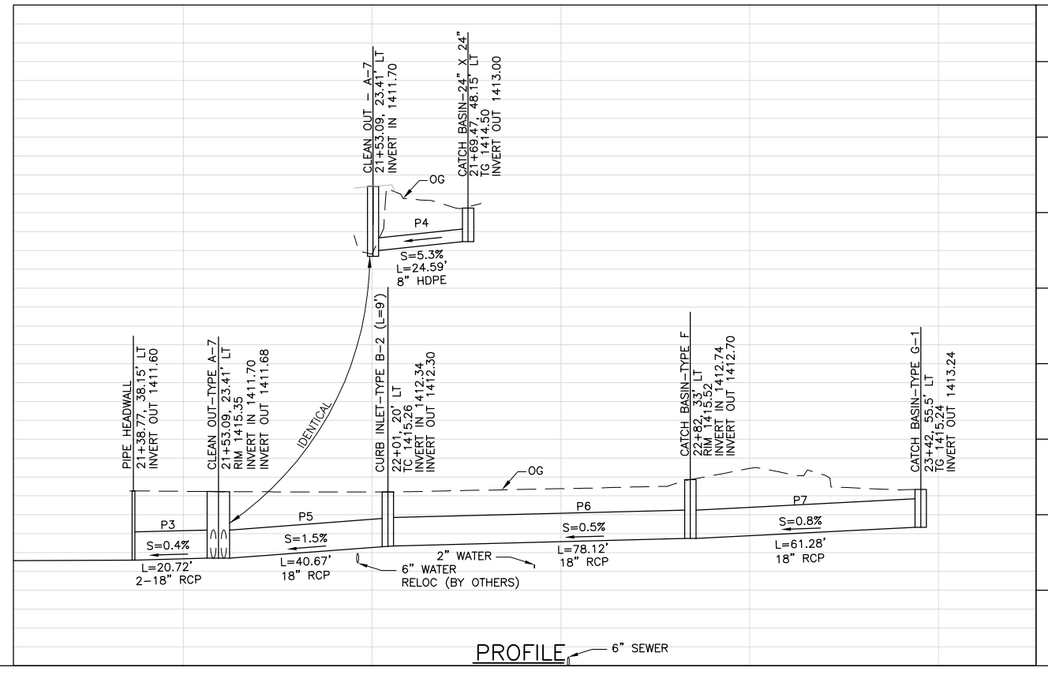

PROFILE — 6" SEWER

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COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
340 N. 1730 E.
CONST. COMPL.
FIELD REVISIONS

TYPICAL SAN DIEGO COUNTY ROAD
In The Vicinity of
PLAN AND PROFILE - STORM DRAIN

SCALE: HOR. 1"=20' VERT. 1"=4'
W.A. R12345 R.S. 1234
SHEET 8 OF 33 SHEETS

H) RETAINING WALL PLAN AND PROFILE

INSTRUCTIONS

Standard Plans and Standard Drawings are available for a variety of retaining walls. Loading and foundation requirements are outlined on the Standard Plans and Standard Drawings. For sites with requirements that are not covered by the Standard Plans or Standard Drawings, a special design is required.

A foundation investigation should be made for all locations at which a retaining wall is being considered. The Department of Public Works Materials Testing Lab typically makes foundation investigations.

The retaining wall plans should include a plan view, an elevation view and typical section. The elevation view should show (and be identified as such): top of wall elevation, top of footing elevation, finished grade, and original ground line at the wall layout line. The original ground line is also to be shown on the typical section.

FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

−1 0 1 2 3 4 5 6 7 8 9 10

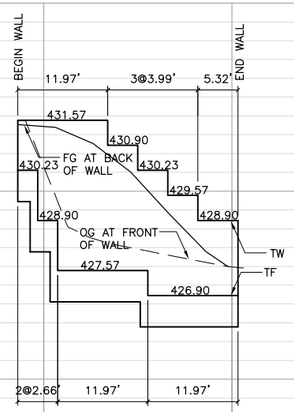
REGISTERED PROFESSIONAL ENGINEER
Registered engineer
No. 123456
Exp.
CIVIL
STATE OF CALIFORNIA

PLANS	BY	DATE
DESIGNED	JJL	12/04
CHECKED	EAM	12/04
DELINEATED	JJL	12/04

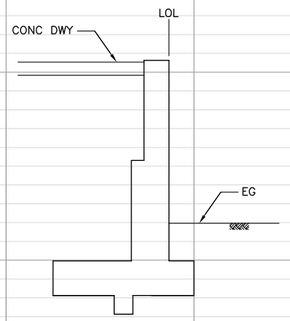
This Firm Name
This Firm Address

REGISTERED CIVIL ENGINEER DATE

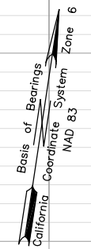
100% SUBMITTAL - NOT FOR CONSTRUCTION

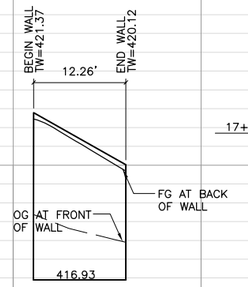


PROFILE



TYPICAL SECTION





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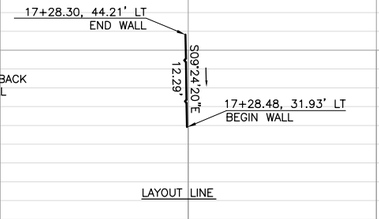
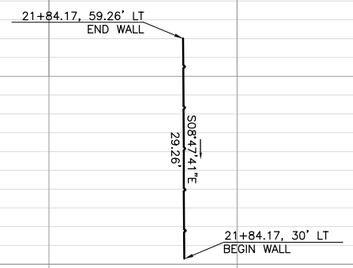


LAYOUT LINE

RETAINING WALL 14 AT 17+28 (L)

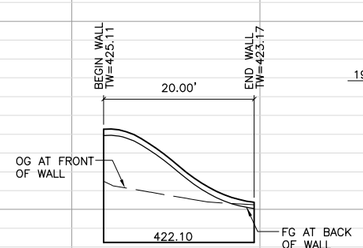
TYPE B GRAVITY RETAINING WALL, RSD C-9



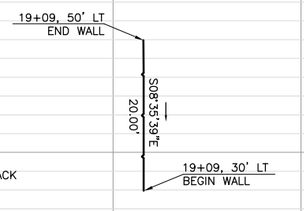
LAYOUT LINE

RETAINING WALL 13 AT 21+84 (L)

TYPE 4 MASONRY WALL, RSD C-4



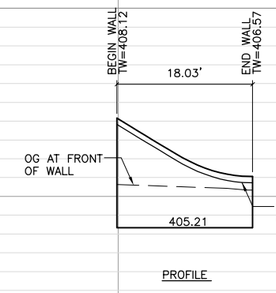
PROFILE



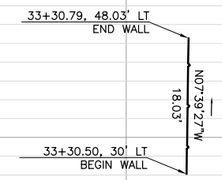
LAYOUT LINE

RETAINING WALL 15 AT 19+09 (L)

TYPE B GRAVITY RETAINING WALL, RSD C-9



PROFILE



LAYOUT LINE

RETAINING WALL 16 AT 33+30 (L)

TYPE B GRAVITY RETAINING WALL, RSD C-9

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
340 N. 1730 E.
CONST. COMPL.
FIELD REVISIONS

TYPICAL SAN DIEGO COUNTY ROAD
In The Vicinity of
RETAINING WALL ELEVATIONS

SCALE: HOR. 1"=10' VERT. 1"=2'
W.A. R12345 R.S. 1234
SHEET 20 OF 33 SHEETS

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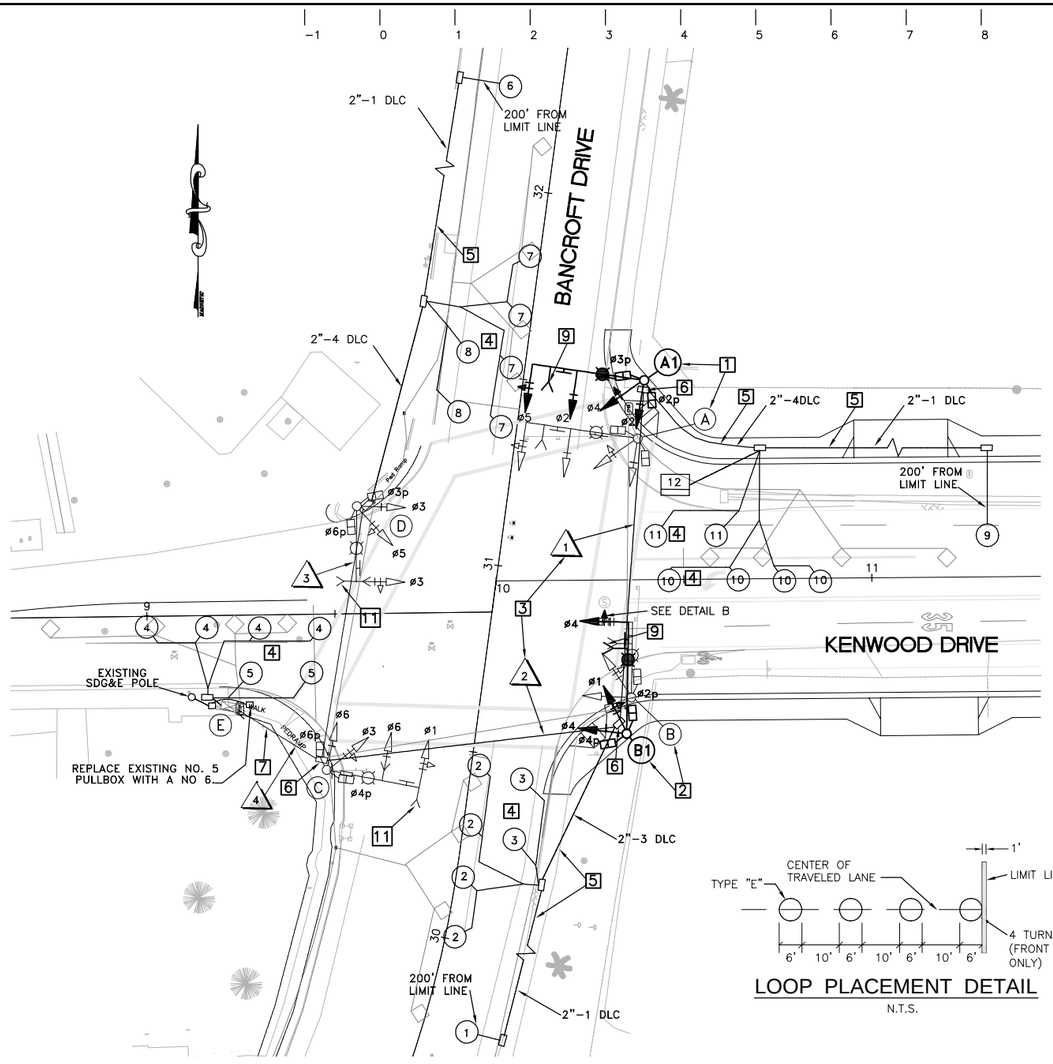
I) TRAFFIC SIGNAL

CHECK LIST

- ❑ Scale (or labeled no scale)
- ❑ Layout Line (road survey, centerline, etc.)
- ❑ Pole and Equipment Schedule
- ❑ Detector Assignment Schedule
- ❑ Phase Diagram
- ❑ Typical Loop Spacing
- ❑ Pedestrian Ramps
- ❑ Conductor Schedule
- ❑ Typical Pole Location
- ❑ Legends (Stop Bar, Arrows, etc.)
- ❑ Striping, Lane Widths
- ❑ Standard North Arrow
- ❑ TR Number

GENERAL NOTES

1. THE LOCATION OF ALL UNDERGROUND UTILITIES IS APPROXIMATE. THE CONTRACTOR SHALL DETERMINE THE DEPTH OF ALL UTILITIES, INCLUDING THOSE NOT SHOWN ON THE PLAN, AND VERIFY ALL CONDITIONS ON THE JOB.
2. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND NOTIFY ALL UTILITIES AND AGENCIES AT LEAST 48 HOURS IN ADVANCE.
3. ALL LOOPS SHALL BE CENTERED IN TRAVEL LANE UNLESS OTHERWISE NOTED.
4. ALL PULL BOXES ARE NUMBER 5, AND CONDUIT IS 2–INCH UNLESS OTHERWISE NOTED.
5. ALL SIGNAL HEADS SHALL BE TWELVE–INCH IN DIAMETER WITH BACK PLATES. ALL RED, YELLOW, AND GREEN INDICATIONS SHALL BE L.E.D.
6. PEDESTRIAN HEADS AND PUSHBUTTON SIGNS SHALL BE INTERNATIONAL SYMBOLS. PEDESTRIAN SIGNALS SHALL BE L.E.D., SIDE BY SIDE.
7. CONTRACTOR SHALL SUBMIT A TRAFFIC CONTROL PLAN FOR TRAFFIC SIGNAL INSTALLATION PER CALTRANS TRAFFIC MANUAL TO THE COUNTY OF SAN DIEGO TRAFFIC ENGINEERING SECTION A MINIMUM OF FIVE (5) WORKING DAYS PRIOR TO CONSTRUCTION. FOR INFORMATION CALL (858) 874–4025.
8. ALL TRAFFIC SIGNAL POLE FOUNDATIONS SHALL HAVE A 3–INCH CONDUIT INSTALLED TO THE ADJACENT PULL BOX.
9. THE CONTRACTOR IS RESPONSIBLE FOR THE LAYOUT AND INSTALLATION OF LOOP DETECTORS, TRAFFIC STRIPING, PAVEMENT MARKINGS, PARKING REMOVAL, AND TRAFFIC SIGNING, AS SHOWN ON THE PLAN:
   a) THE CONTRACTOR SHALL OBTAIN THE APPROVAL OF THE COUNTY TRAFFIC ENGINEERING SECTION FOR THE LOOP LOCATIONS, STRIPING, PAVEMENT MARKINGS, PARKING REMOVAL, AND SIGN LOCATIONS PRIOR TO PAINTING AND INSTALLATION. CONTRACTOR SHALL USE LEAD–FREE PAINT FOR ALL STRIPING AND PAVEMENT MARKINGS.
   b) THE CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL OF ALL CONFLICTING STRIPING AND PAVEMENT MARKINGS AND SANDBLASTING/GRINDING AND SAND SEALING.
10. CONTRACTOR SHALL NOT ERECT ANY SIGNAL STANDARDS MORE THAN THREE WEEKS PRIOR TO SCHEDULED TRAFFIC SIGNAL TURN ON.
11. FLASHING SIGNAL OPERATION SHALL BE RED ON ALL PHASES. PEDESTRIAN SIGNALS SHALL BE BLANK DURING FLASHING OPERATION.
12. ALL TRAFFIC SIGNAL IMPROVEMENTS SHALL BE INSTALLED IN COORDINATION WITH THE SIGNING AND STRIPING CONTRACTOR.
13. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY MONUMENTATION AND/OR BENCHMARKS WHICH WILL BE DISTURBED OR DESTROYED BY CONSTRUCTION. SUCH POINTS SHALL BE REFERENCED AND REPLACED BY APPROPRIATE MONUMENTATION BY A LICENSED LAND SURVEYOR OR A REGISTERED CIVIL ENGINEER AUTHORIZED TO PRACTICE LAND SURVEYING. A CORNER RECORD OR RECORD OF SURVEY, AS APPROPRIATE, SHALL BE FILED BY THE LICENSED SURVEYOR OR REGISTERED CIVIL ENGINEER AS REQUIRED BY THE LAND SURVEYOR'S ACT.
14. RAISED PAVEMENT MARKERS SHALL BE PLACED ON ALL NEW CENTERLINE AND LANE LINE STRIPING PER CALTRANS STANDARD PLANS.
15. CONTRACTOR SHALL REPLACE ALL STRIPING, PAVEMENT MARKERS, AND LEGENDS OBLITERATED BY THIS PROJECT.
16. CONTRACTOR SHALL REMOVE/TRIM VEGETATION PER ENGINEER.
17. ALL CONDUIT PLACED IN STREET SHALL HAVE A MINIMUM OF 24" COVER (R.S.D. G–34).



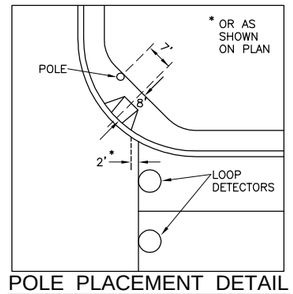
FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

REGISTERED PROFESSIONAL ENGINEER — Registered engineer — No. 123456 — Exp. — CIVIL — STATE OF CALIFORNIA

PLANS	BY	DATE
DESIGNED	LP	03/04
CHECKED	DB	03/04
DELINEATED	LP	03/04

This Firm Name
This Firm Address

REGISTERED CIVIL ENGINEER _____ DATE _____



POLE PLACEMENT DETAIL
N.T.S.

PHASE DIAGRAM

ø1	ø2	ø3	ø4
ø5	ø6	ø7 NOT USED	ø8 NOT USED

CONSTRUCTION NOTES

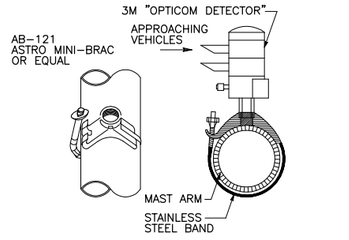
1. RELOCATE AND REPLACE POLE (A) WITH NEW POLE (A1). SALVAGE EXISTING POLE: 19A–4–70.
2. RELOCATE AND REPLACE POLE (B) WITH NEW POLE (B1) . SALVAGE EXISTING POLE: 17A–3–70.
3. INSTALL CONDUIT RUNS 1 & 2.
4. TYPE E DETECTOR LOOPS.
5. INSTALL CONDUIT AS SHOWN.
6. INSTALL No. 6 PULLBOXES AS SHOWN.
7. INSTALL ADDITIONAL DLC CABLE IN CONDUIT RUN 4.
8. PROVIDE AND INSTALL NEW TRAFFIC SIGNAL STREET NAME SIGNS PER COUNTY OF SAN DIEGO STREET NAME STANDARD PLAN DATED 12/20/98, SHEETS 1 AND 2 OF 2, AS WELL AS DETAIL 2.
9. INSTALL EMERGENCY VEHICLE PRE–EMPTION EQUIPMENT. MOUNTING HARDWARE AND CABLE SHALL BE FURNISHED BY CONTRACTOR. SEE DETAIL A ON THIS SHEET.
10. REPLACE ALL CONDUCTORS ON "CONDUCTOR SCHEDULE".

LOOP PLACEMENT DETAIL
N.T.S.

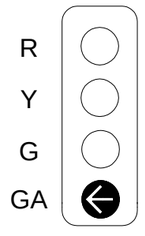
POLE AND EQUIPMENT SCHEDULE

	LOC.	STANDARD TYPE	STANDARD MASTARM SIG.	STANDARD MASTARM LUM.	SIGNAL MOUNTING AND PLACEMENT VEHICLE POLE	VEHICLE MASTARM	PEDESTRIAN SIGNAL	PEDESTRIAN PPB	REMARKS
(N)	(A1)	19–4–80 (N)	30' (N)	12' (N)	(N)SV–2–TB ø2 ø4 ●	(N) MAS ø2 (N)MAS ø5●	(N) SP–2–T ø2P ø3P	(N) ø2W ø3S	REPLACE AND RELOCATE EXISTING POLE "KENWOOD DR" 8 (N) 250 WHPS
(N)	(B1)	19–3–80 (N)	30' (N)	12' (N)	(N)SV–2–TB ø1● ø4	(N) MAS ø4 ✱	(N) SP–2–T ø2P ø4P	(N) ø2W ø4N	REPLACE AND RELOCATE EXISTING POLE "BANCROFT DR" 8 (N) 250 WHPS
(E)	(C)	19A–4–70	25'	12'	SV–2–TB ø3 ø6	MAS ø1 MAS ø6	SP–2–T ø4P ø6P	ø4N ø6E	EXISTING POLE TO REMAIN "KENWOOD DR" (N) 250 WHPS
(E)	(D)	17A–3–70	20'	12'	SV–2–TB ø3 ø5	MAS ø3	SP–2–T ø3P ø6P	ø3N ø6E	EXISTING POLE TO REMAIN "BANCROFT DR" (N) 250 WHPS
(E)	(E)	MODEL 170 CONTROLLER ASSEMBLY							

● = RED, YELLOW, AND GREEN ARROWS ✱ = RED, YELLOW, GREEN, AND GREEN ARROWS
(N) = NEW
(E) = EXISTING TO REMAIN



DETAIL A
OPTICAL DETECTOR ASSEMBLY
EVPE TO BE MOUNTED 7' FROM END OF MAST ARM



DETAIL B
3 SECTION VEHICULAR SIGNAL HEAD POLE B

DETECTOR ASSIGNMENT SCHEDULE

No.	PHASE	SLOT	FIELD TERMINAL
1	2	I2U	TB2–5 & 6
2	5	J1U	TB3–1 & 2
3	2	I2L	TB2–7 & 8
4	4	I6U	TB4–9 & 10
5	4	I6L	TB4–11 & 12
6	6	J2U	TB3–5 & 6
7	1	I1U	TB2–1 & 2
8	6	J2L	TB3–7 & 8
9	3	I5U	TB4–5 & 6
10	3	I5L	TB4–7 & 8
11	3	I9U	TB6–9 & 10
12	3	I9L	TB6–11& 12
PPB–ø2P	ø2P	2I12U	TB8–4 & COM 12
PPB–ø3P	ø3P	3I13L	TB8–5 & COM 13
PPB–ø4P	ø4P	4I12L	TB8–8 & COM 12
PPB–ø6P	ø6P	6I13U	TB8–7 & COM 13

*REPLACE ALL LOOPS.

CONDUCTOR SCHEDULE

AWG OR CABLE	PHASE	POLE OR CIRCUIT	* 1	* 2	3	4		
3/5/12 SIGNAL CABLE		POLE A	1 1	1 1 1		1 1		
		POLE B		1 1 1		1 1		
		POLE C				1 1		
		POLE D			1 1	1 1		
TOTAL CABLES (3 COND/5 COND/12 COND)			1 1	2 1 2	1 1	4 1 4		
#10 – LUMINAIRE			2	2	2	2		
#10 – FLASHING BEACON								
#6 – SERVICE								
DLC TYPE "B"	ø1				1	1		
	ø2			2		2		
	ø3		4	4		4		
	ø4					2		
	ø5			1		1		
	ø6				2	2		
TOTAL DLC			3	6	3	11		
EVPE – DLC			1	2	1	4		
CONDUIT SIZE			4"	4"	2"	3½"		

* RELOCATE AND REPLACE CONDUIT. 10

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COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
340 N. 1730 E.
CONST. COMPL. _____
FIELD REVISIONS _____

TYPICAL SAN DIEGO COUNTY ROAD
In The Vicinity of
TRAFFIC SIGNAL PLAN (TR–147)

SCALE: HOR. 1"=20' VERT. NONE
W.A. R12345 R.S. 1234
SHEET 23 OF 33 SHEETS

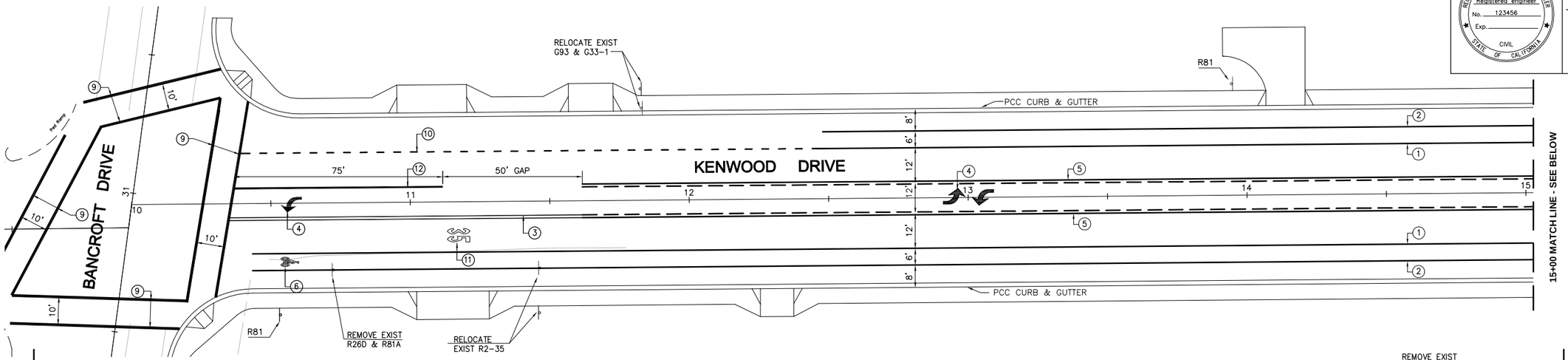
FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

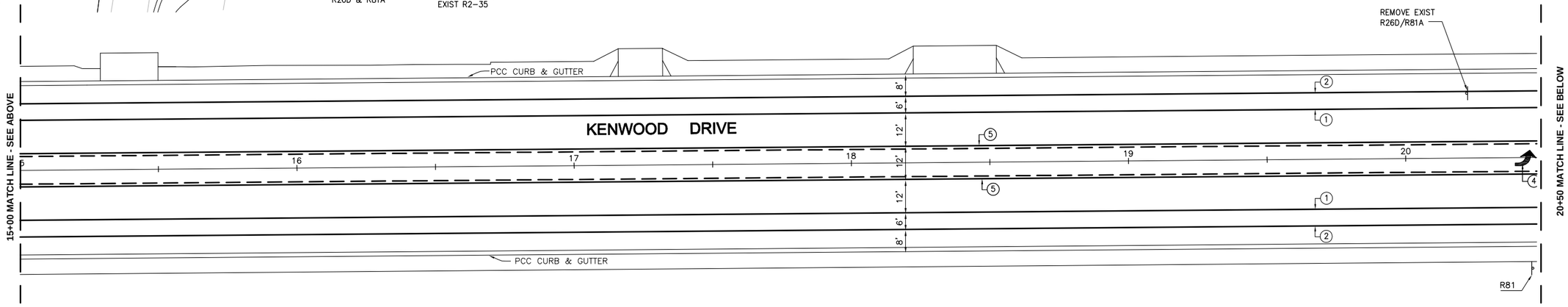
PLANS	BY	DATE
DESIGNED	LFP	12/04
CHECKED	NS	12/04
DELINEATED	LFP	12/04

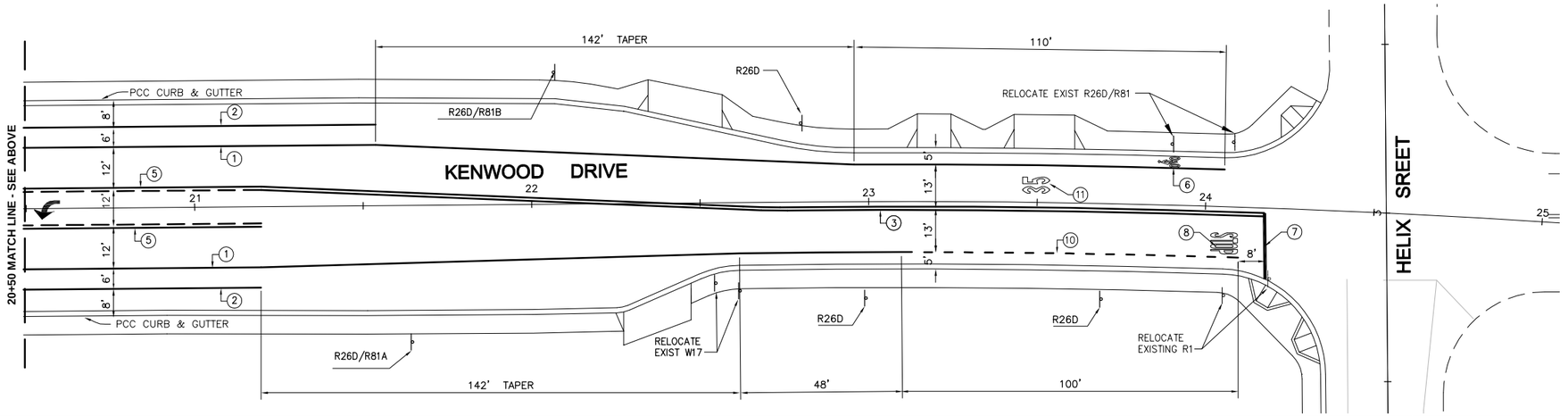
REGISTERED PROFESSIONAL ENGINEER — Registered engineer — No. 123456 — Exp. — CIVIL — STATE OF CALIFORNIA

This Firm Name
This Firm Address

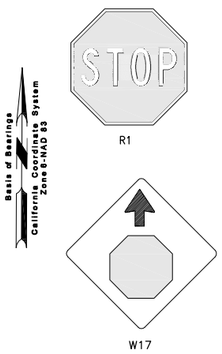
REGISTERED CIVIL ENGINEER _____ DATE _____







SIGN LEGEND



GENERAL NOTE:

THE CONTRACTOR IS RESPONSIBLE FOR THE REMOAL OF ALL CONFLICTING STRIPING AND PAVEMENT MARKINGS AND SANDBLASTING/GRINDING AND SAND SEALING.

STRIPING LEGEND:

1. 6" WHITE LINE, STD. PLAN A20D, DETAIL 39
2. 4" WHITE LINE, STD. PLAN A20B, DETAIL 27B
3. DOUBLE YELLOW LINE, STD. PLAN A20A, DETAIL 22
4. TYPE IV(L) ARROW, STD. PLAN A24A
5. TWO-WAY LEFT TURN LANE, STD. PLAN A20B, DETAIL 32
6. BIKE LANE SYMBOL, STD. PLAN A24C
7. 12" WHITE LIMIT LINE, STD. PLAN A24E
8. "STOP" MARKING STD. PLAN A24D
9. 12" WHITE CROSSWALK, STD. PLAN A24E
10. DASHED 6" WHITE LINE, STD. PLAN A20D, DETAIL 39A
11. WHITE NUMERALS, STD. PLAN A24C
12. 8" WHITE, STD. PLAN A20D, DETAIL 38

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

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CONST. COMPL. _____
FIELD REVISIONS _____

TYPICAL SAN DIEGO COUNTY ROAD
In The Vicinity of
SIGNING AND STRIPING

SCALE: HOR. 1"=20' VERT. NONE
W.A. R12345 R.S. 1234
SHEET 12 OF 33 SHEETS

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FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

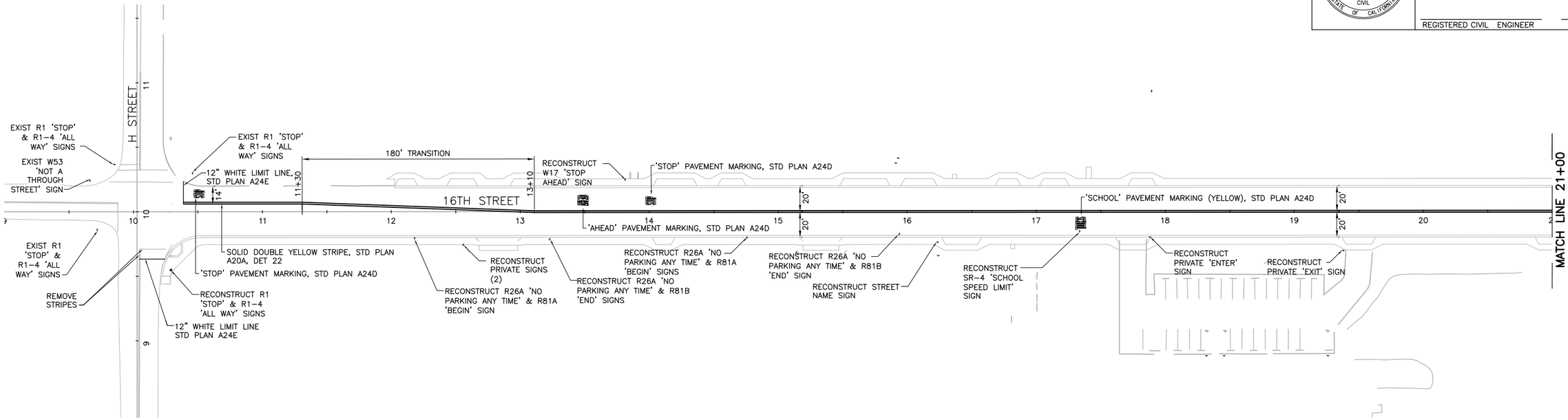
−1 0 1 2 3 4 5 6 7 8 9 10

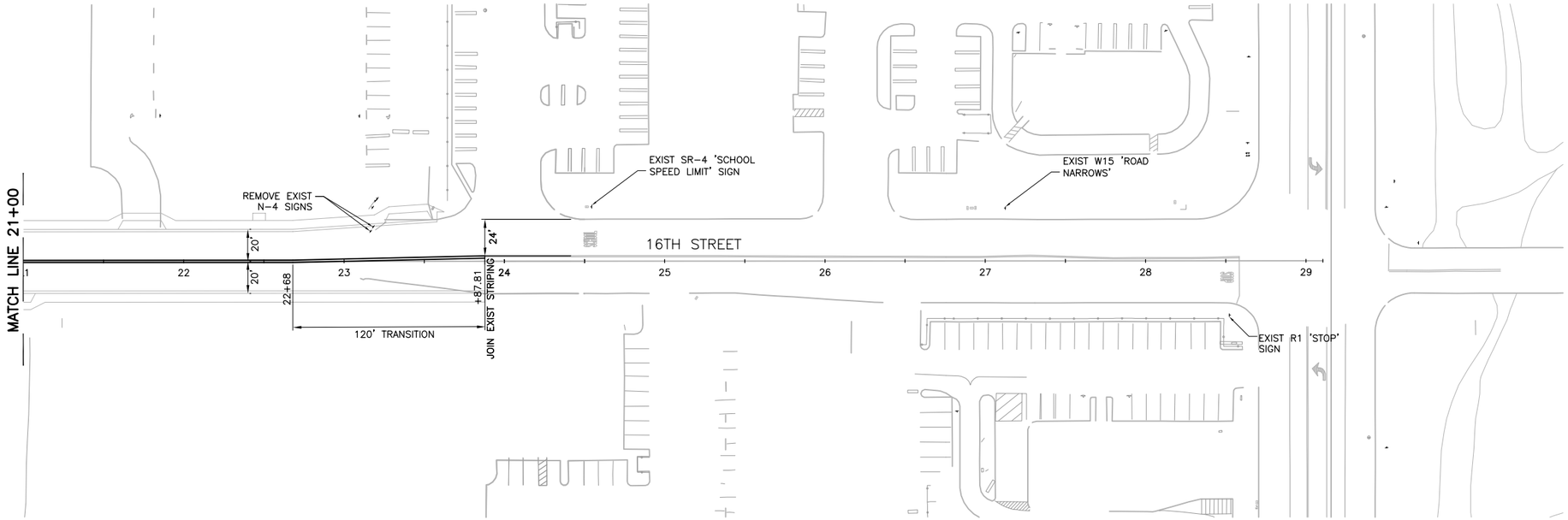
REGISTERED PROFESSIONAL ENGINEER
Registered engineer
No. 123456
Exp.
CIVIL
STATE OF CALIFORNIA

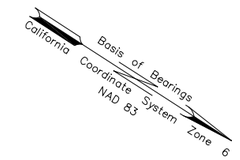
PLANS	BY	DATE
DESIGNED	SC	11/04
CHECKED	MC	12/04
DELINEATED	TE	11/04

This Firm Name
This Firm Address

REGISTERED CIVIL ENGINEER _____ DATE _____







NOTES:

1. CONTRACTOR SHALL LAYOUT ALL INTERIM AND FINAL: STRIPING, PAVEMENT MARKERS, AND SIGN PLACEMENT. LAYOUT SHALL BE INSPECTED BY THE ENGINEER PRIOR TO INSTALLATION.
2. CONTRACTOR SHALL REPLACE ANY STRIPING, PAVEMENT MARKERS, OR LEGENDS OBLITERATED BY CONSTRUCTION.
3. CONTRACTOR SHALL REMOVE ALL REDUNDANT STRIPING.

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COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
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FIELD REVISIONS _____

TYPICAL SAN DIEGO COUNTY ROAD
In The Vicinity of
SIGNING AND STRIPING

SCALE: HOR. 1"=40' VERT. NONE
W.A. R12345 R.S. 1234
SHEET 12 OF 33 SHEETS

J) TRAFFIC CONTROL PLAN

INSTRUCTIONS

These plans show the sequence of operation, work to be performed, and the traveled way to be used for all movements of traffic during each construction sequence.

Stage Construction, Traffic Control, and/or Detour Plans shall be included in the project plans when detours or staging of the work is needed. Where sufficient information to construct detours cannot be shown on the Stage Construction and Traffic Control Plans, separate Detour Plans shall be prepared. Stage Construction and Traffic Control Plans may be prepared by utilizing duplicate skeletons of the base plan sheets.

Each stage shown on the Stage Construction Plan shall show:

- Existing roadbeds and roadbeds completed on previous stage
- Construction to be performed in the stage shown
- Traffic direction and number of lanes available in the stage shown

Existing road or detours that have been replaced by permanent construction in previous stages shall not be shown on subsequent stages.

PLAN CHECKLIST

- ❑ Scales (or labeled no scale)
- ❑ Standard North Arrow
- ❑ Underground Utilities (sewer, water, gas, and telephone)
- ❑ Utility Poles
- ❑ Detour Centerline (stations, equations)
- ❑ Bearings
- ❑ Right of Way Widths
- ❑ Detour Width
- ❑ Driveways (station, width, surfacing)
- ❑ Drainage Pipes
- ❑ Detour Signing
- ❑ Typical Section

PROFILE CHECKLIST

- ❑ Grid
- ❑ Grades
- ❑ Original Ground
- ❑ Drainage Pipes
- ❑ Utility Crossings

FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

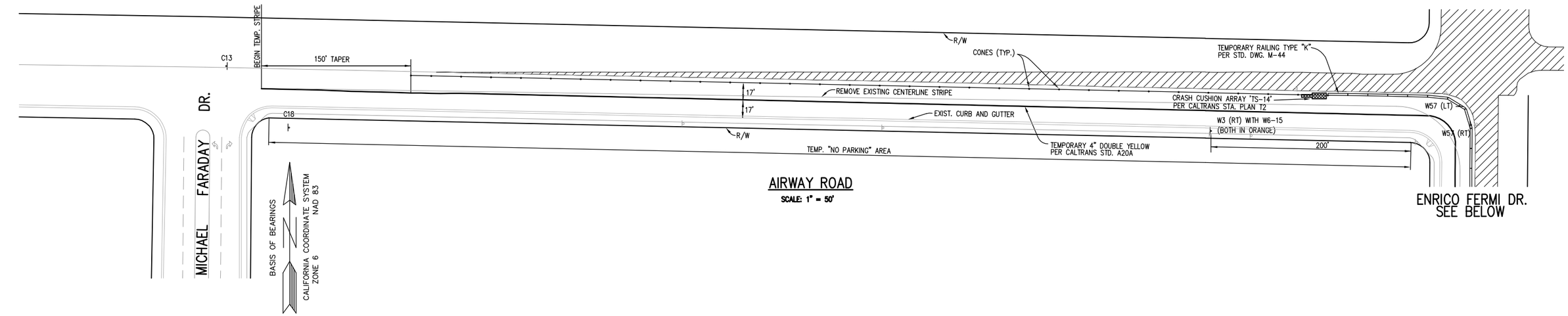
−1 0 1 2 3 4 5 6 7 8 9 10

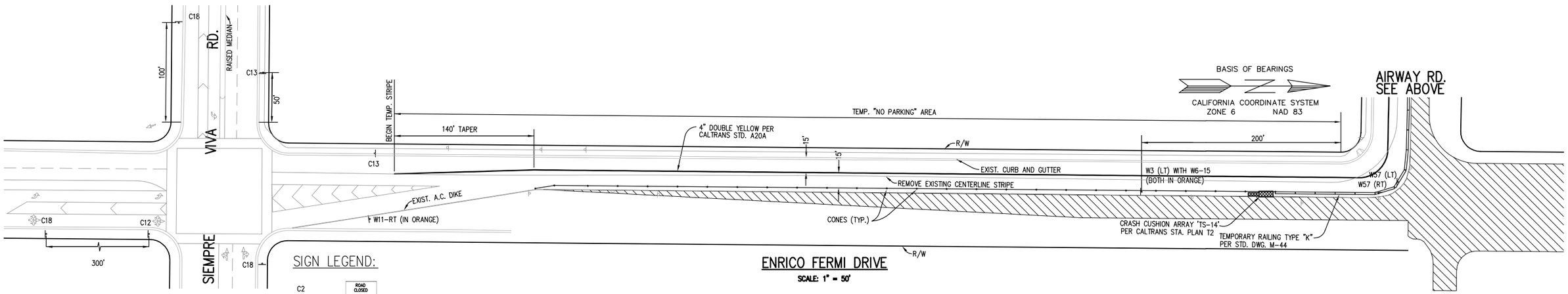
REGISTERED PROFESSIONAL ENGINEER — Registered engineer — No. 123456 — Exp. ____ — CIVIL — STATE OF CALIFORNIA

PLANS	BY	DATE
DESIGNED	J.A.H	11/01
CHECKED	J.A.H.	11/01
DELINEATED	W.H.M.	11/01

This Firm Name
This Firm Address

REGISTERED CIVIL ENGINEER _____ DATE _____





SIGN LEGEND:

C2	ROAD CLOSED
C12	NARROW LANE
C13	END CONSTRUCTION
C18	ROAD CONSTRUCTION AHEAD
W3	
W11(RT)	
W56	
W57	

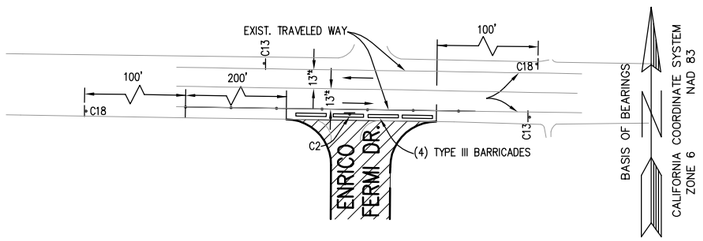
TRAFFIC CONTROL LEGEND:

CONE	•
TEMPORARY BARRICADE	
SIGN	⊢
TEMP. CRASH CUSHIONS	
WORK AREA	

WORK HOURS: _____ TO _____

WORK DATES: _____ TO _____

WORK DATES TO BE PROVIDED BY THE CONTRACTOR PRIOR TO THE COMMENCEMENT OF WORK.



OTAY MESA ROAD
SCALE: 1" = 50'

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

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340 N. 1730 E.
CONST. COMPL. _____
FIELD REVISIONS _____

TYPICAL SAN DIEGO COUNTY ROAD
In The Vicinity of
TRAFFIC CONTROL PLAN

SCALE: HOR. 1" = 50' VERT. NONE
W.A. R12345 R.S. 1234
SHEET 14 OF 33 SHEETS

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FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

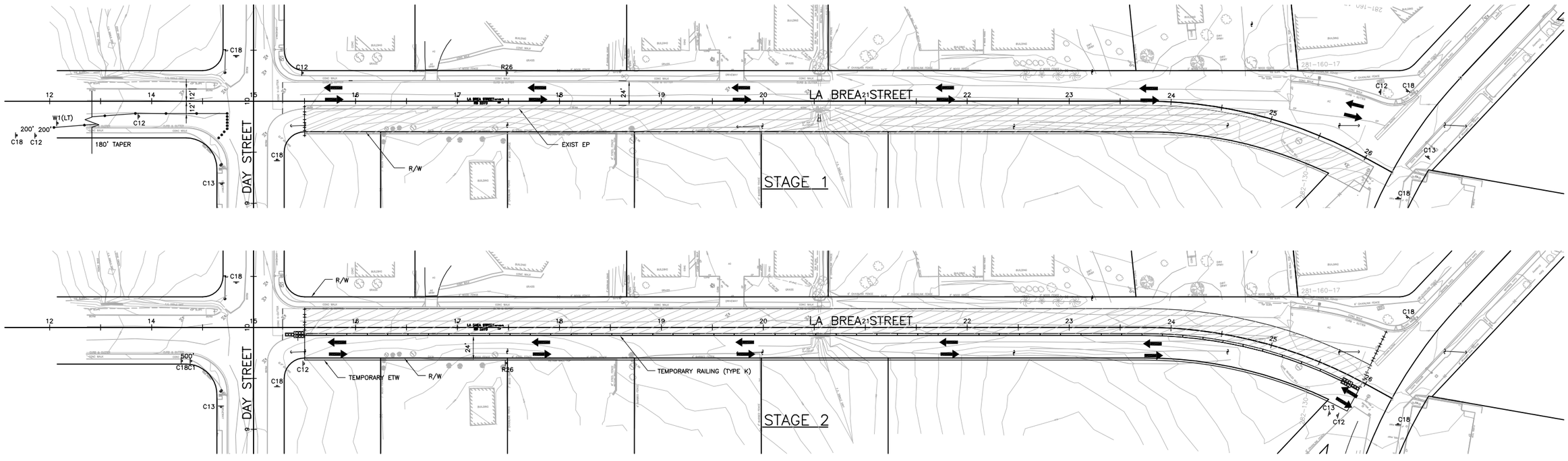
−1 0 1 2 3 4 5 6 7 8 9 10

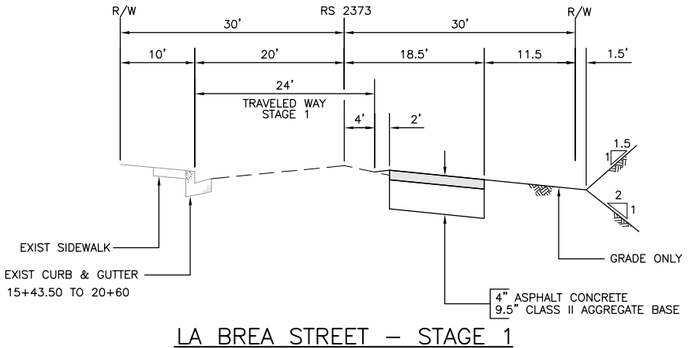
REGISTERED PROFESSIONAL ENGINEER
Registered engineer
No. 123456
Exp.
CIVIL
STATE OF CALIFORNIA

PLANS	BY	DATE
DESIGNED	JJL	12/04
CHECKED	KB	12/04
DELINEATED	JJL	12/04

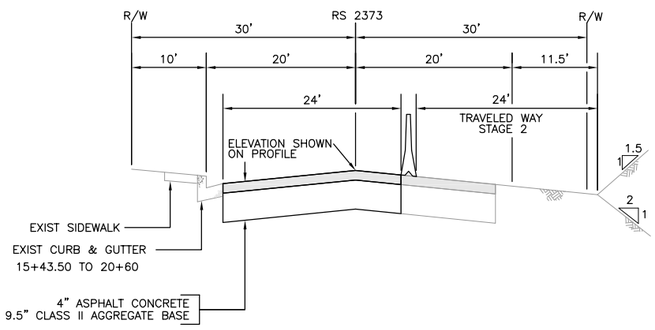
This Firm Name
This Firm Address

REGISTERED CIVIL ENGINEER DATE





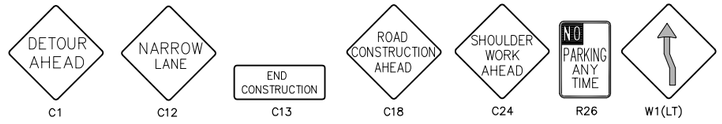
LA BREA STREET – STAGE 1
N.T.S.



LA BREA STREET – STAGE 2
N.T.S.

LEGEND

- CONSTRUCTION THIS STAGE
- DIRECTION OF TRAFFIC
- TEMPORARY RAILING (TYPE K)
- CONSTRUCTION SIGN
- CONE
- CRASH CUSHION CALTRANS STD A81A



COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

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340 N. 1730 E.
CONST. COMPL.
FIELD REVISIONS

TYPICAL SAN DIEGO COUNTY ROAD
In The Vicinity of
STAGE CONSTRUCTION PLAN

SCALE: HOR. 1"=50' VERT. NONE
W.A. R12345 R.S. 1234
SHEET 9 OF 33 SHEETS

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K) WATER POLLUTION CONTROL PLAN

INSTRUCTIONS

Every effort must be maintained to control runoff during the construction phase of the project. Include a plan view describing an erosion and sediment control plan. The design must demonstrate that runoff will be controlled during construction and after completion.

CHECKLIST

- ❑ Temporary BMP
- ❑ Scale (or labeled no scale)
- ❑ Standard North Arrow
- ❑ Existing Topography screened at 10 percent
- ❑ Proposed Topography showing one foot Contour Lines and Elevation Values at every five (5) foot increments
- ❑ Top of Slope/Toe of Slope
- ❑ Fill Slope/Cut Slope
- ❑ Daylight Limits of Grading
- ❑ Roadway Widths
- ❑ Right-of-Way Widths
- ❑ Driveways
- ❑ Existing Drainage Facilities with Flow Direction
- ❑ Proposed Drainage Facilities with Flow Direction
- ❑ Environmental Sensitive Area
- ❑ Storm Water Discharge Location
- ❑ Existing Graded Swale
- ❑ Proposed Graded Swale
- ❑ Legend of BMP
- ❑ Description of BMP
- ❑ Details
- ❑ Cross Section of Details

REGISTERED PROFESSIONAL ENGINEER
Registered engineer
No. 123456
Exp.
CIVIL
STATE OF CALIFORNIA

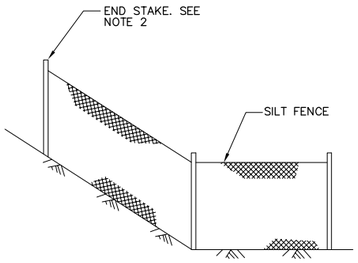
PLANS	BY	DATE
DESIGNED	JJL	12/04
CHECKED	KB	12/04
DELINEATED	JJL	12/04

This Firm Name
This Firm Address

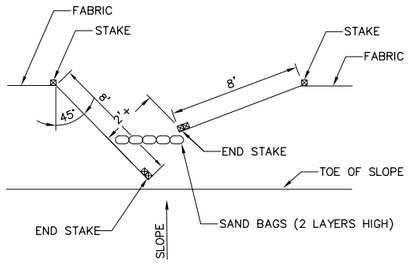
REGISTERED CIVIL ENGINEER DATE

NOTES

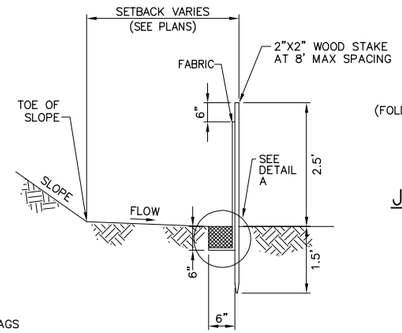
1. CONSTRUCT THE LENGTH OF EACH REACH SO THAT THE CHANGE IN BASE ELEVATION ALONG THE REACH DOES NOT EXCEED 1/3 THE HEIGHT OF THE LINEAR BARRIER, IN NO CASE SHALL THE REACH LENGTH EXCEED 500 FEET.
2. THE LAST 8 FEET OF FENCE SHALL BE TURNED UP SLOPE.
3. STAKE DIMENSIONS ARE NOMINAL.
4. DIMENSIONS MAY VARY TO FIT FIELD CONDITION.
5. STAKES SHALL BE SPACED AT 8 FOOT MAXIMUM, AND SHALL BE POSITIONED ON DOWNSTREAM SIDE OF FENCE.
6. STAKES TO OVERLAP AND FENCE FABRIC TO FOLD AROUND EACH STAKE ONE FULL TURN. SECURE TO STAKE WITH 4 STAPLES.
7. STAKES SHALL BE DRIVEN TIGHTLY TOGETHER TO PREVENT POTENTIAL FLOW−THROUGH OF SEDIMENT AT JOINT. THE TOPS OF THE STAKES SHALL BE SECURED WITH WIRE.
8. FOR END STAKES, FENCE FABRIC SHALL BE FOLDED AROUND TWO STAKES ONE FULL TURN AND SECURED WITH 4 STAPLES.
9. MINIMUM 4 STAPLES PER STAKE. DIMENSIONS SHOWN ARE TYPICAL.
10. CROSS BARRIERS SHALL BE A MINIMUM OF 1/3, AND A MAXIMUM OF 1/2 THE HEIGHT OF THE LINER BARRIER.
11. MAINTENANCE OPENINGS SHALL BE CONSTRUCTED IN A MANNER TO ENSURE SEDIMENT REMAINS BEHIND SILT FENCE.
12. JOINING SECTIONS SHALL NOT BE PLACED AT SUMP LOCATIONS.
13. SANDBAG ROWS AND LAYERS SHALL BE OFFSET TO ELIMINATE GAPS.



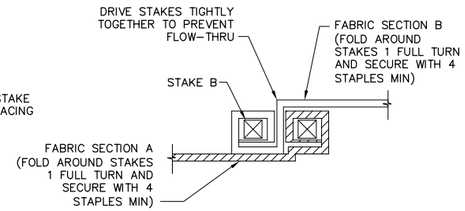
END DETAIL



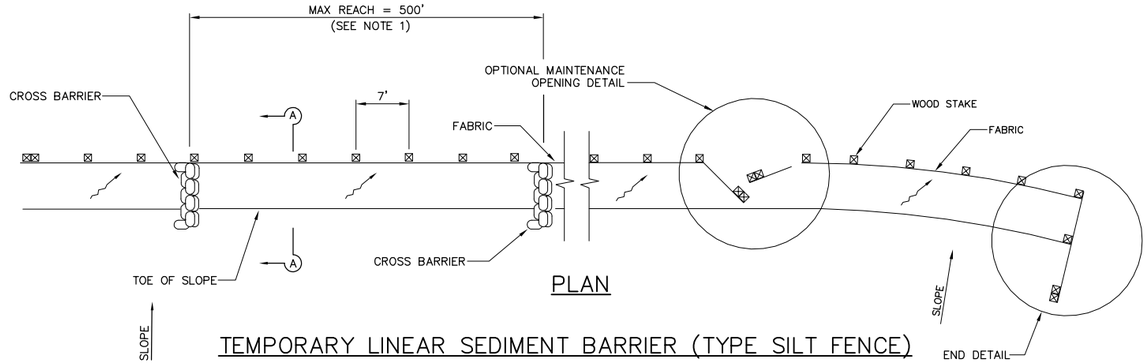
OPTIONAL MAINTENANCE OPENING DETAIL
(SEE NOTE 11)



SECTION A−A

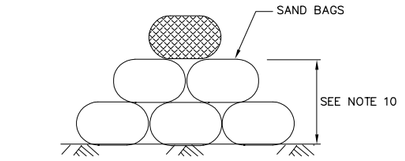


JOINING SECTION DETAIL (TOP VIEW)

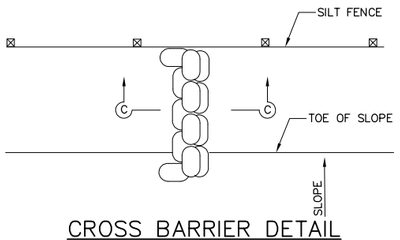


PLAN

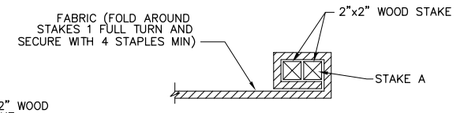
TEMPORARY LINEAR SEDIMENT BARRIER (TYPE SILT FENCE)



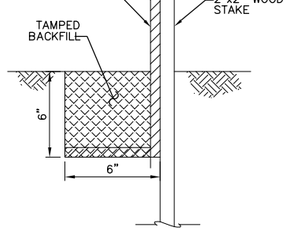
SECTION C−C



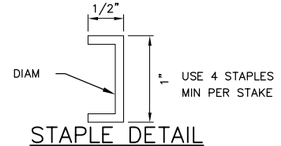
CROSS BARRIER DETAIL



END STAKE DETAIL (TOP VIEW)



DETAIL A



STAPLE DETAIL

TEMPORARY SILT FENCE
NO SCALE

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COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
340 N. 1730 E.
CONST. COMPL.
FIELD REVISIONS

TYPICAL SAN DIEGO COUNTY ROAD
In The Vicinity of
WATER POLLUTION CONTROL DETAILS

SCALE: HOR. NONE VERT. NONE
W.A. R12345 R.S. 1234
SHEET 15 OF 33 SHEETS

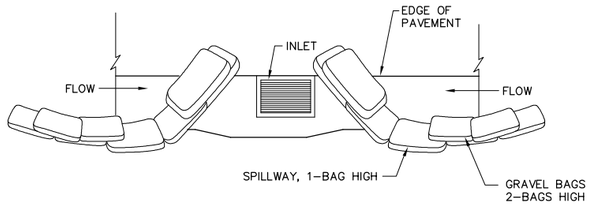
FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

PLANS	BY	DATE
DESIGNED	JJL	12/04
CHECKED	KB	12/04
DELINEATED	JJL	12/04

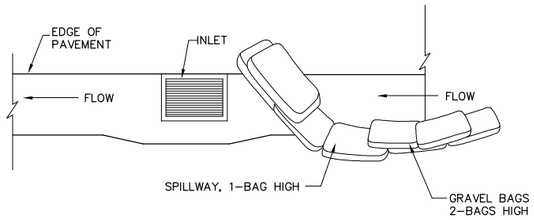
REGISTERED PROFESSIONAL ENGINEER — Registered engineer — No. 123456 — Exp. ____ — CIVIL — STATE OF CALIFORNIA

This Firm Name
This Firm Address

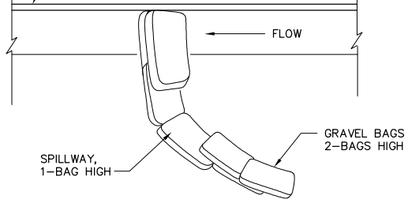
REGISTERED CIVIL ENGINEER _____ DATE _____



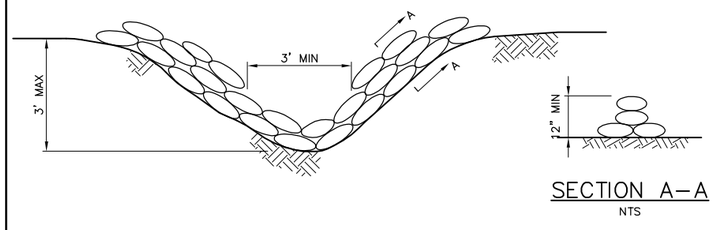
PROTECTION FOR INLET ON SUMP
NTS



PROTECTION FOR INLET ON GRADE
NTS

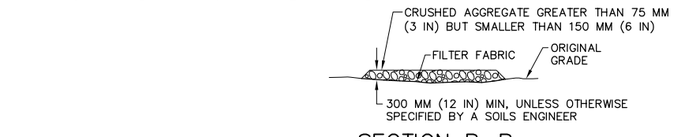


GRAVEL BAG CHEVRON

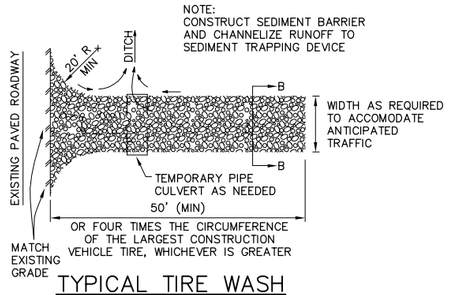


SECTION A–A
NTS

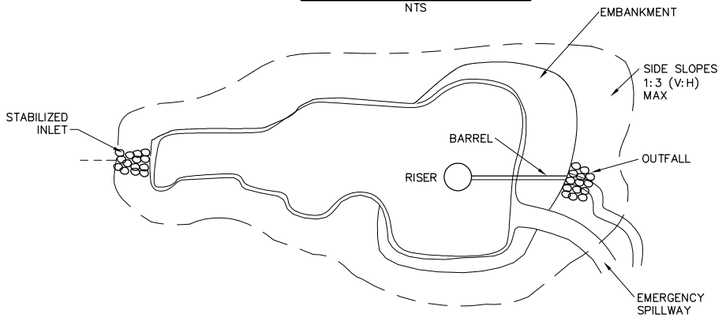
TEMPORARY GRAVEL BAG BARRIER
NTS



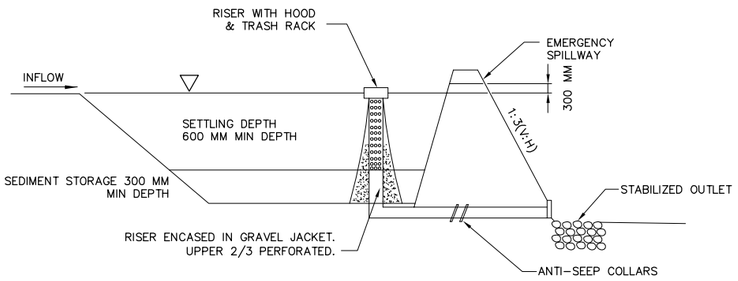
SECTION B–B
NTS



TYPICAL TIRE WASH
NTS



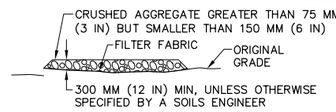
TOP VIEW



SIDE VIEW

NOTES:
1. TYPICAL TRAP DESIGN SHOWN WILL HANDLE 12.7 MM OF RUNOFF OVER A 24 HOUR PERIOD.
2. SETTLING VOLUME: 130 CM PER HECTARE OF DRAINAGE AREA.
3. SEDIMENT STOAGE VOLUME: 65 CM PER HECTARE OF DRAINAGE AREA.

TYPICAL SEDIMENT TRAP DETAIL SC 3–1
NTS



SECTION B–B
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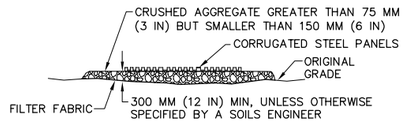
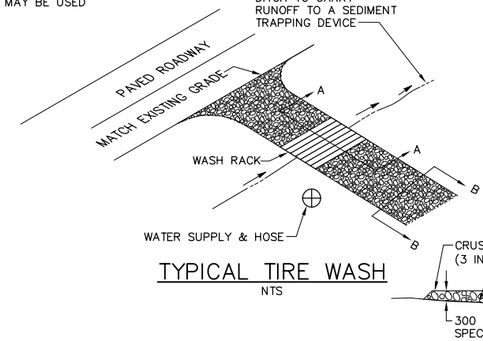


SECTION A–A
NTS

NOTE:
MANY DESIGNS CAN BE FIELD FABRICATED, OR FABRICATED UNITS MAY BE USED



TYPICAL TIRE WASH
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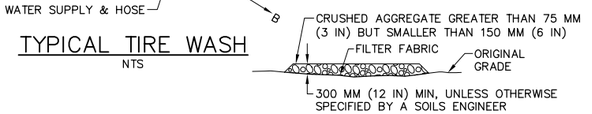
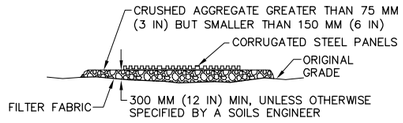
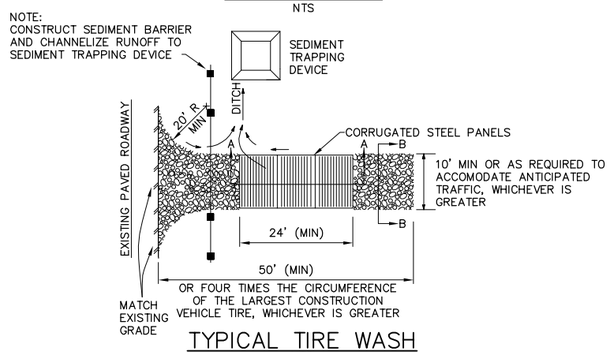


SECTION B–B
NTS



SECTION A–A
NTS



TYPICAL TIRE WASH
NTS

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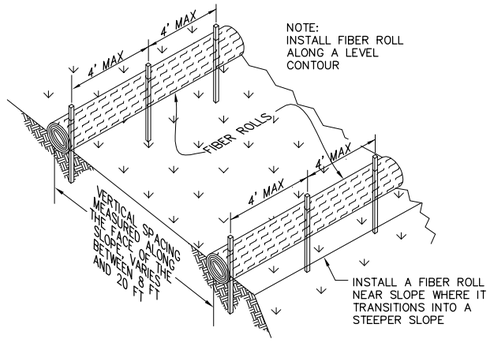
COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

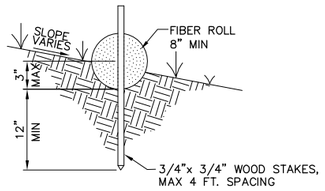
COORDINATE INDEX
340 N. 1730 E.
CONST. COMPL. _____
FIELD REVISIONS _____

TYPICAL SAN DIEGO COUNTY ROAD
In The Vicinity of
WATER POLLUTION CONTROL DETAILS

SCALE: HOR. NONE VERT. NONE
W.A. R12345 R.S. 1234
SHEET 16 OF 33 SHEETS

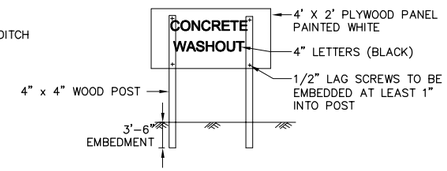


TYPICAL FIBER ROLL INSTALLATION
NTS

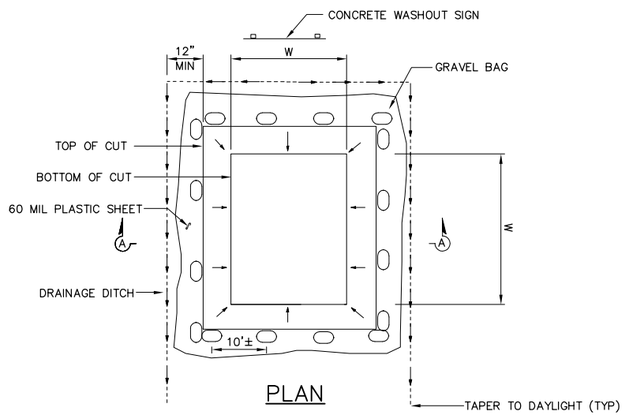


ENTRENCHMENT DETAIL
NTS

SECTION A–A



SIGN ELEVATION
NTS



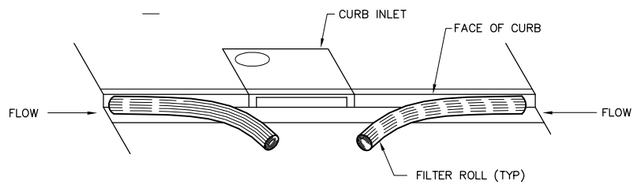
PLAN

PIT SIZING CHART		
APPROX. VOLUME OF SPOILS	MIN. WIDTH (W)	DEPTH (D)
5 CY OR LESS	3'	1.0'
5 TO 20 CY	10'	1.0'
20 CY OR MORE	15'	1.5'

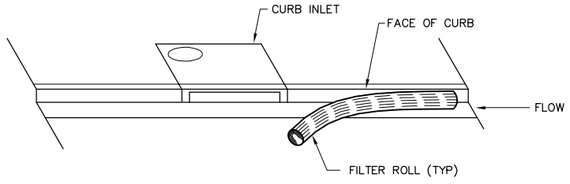
NOTES:
1. ULTIMATE WASHOUT SIZE DETERMINED BY AMOUNT OF CONCRETE REQUIRED FOR PROJECT AREA AND/OR POUR LOCATION.
2. THE CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 20 FEET OF THE TEMPORARY CONCRETE WASHOUT

TEMPORARY CONCRETE WASHOUT FACILITY
(BELOW GRADE)

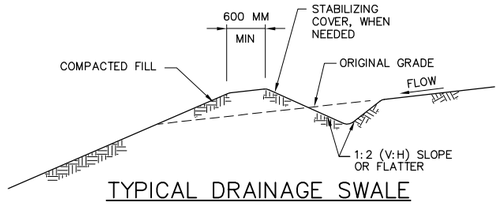
FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES



PROTECTION FOR INLET ON SUMP
NTS

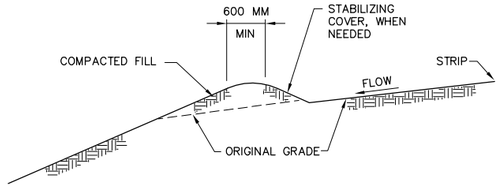


PROTECTION FOR INLET ON GRADE
NTS

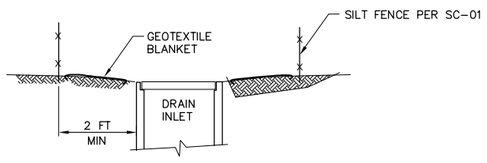


TYPICAL DRAINAGE SWALE
NTS

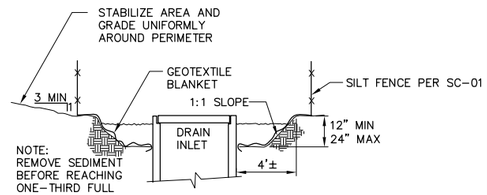
NOTES:
1. STABILIZE INLET, OUTLETS AND SLOPES.
2. PROPERLY COMPACT THE SUBGRADE, IN CONFROMANCE WITH SECTION 19–5 OF THE CALTRANS STANDARD SPECIFICATIONS



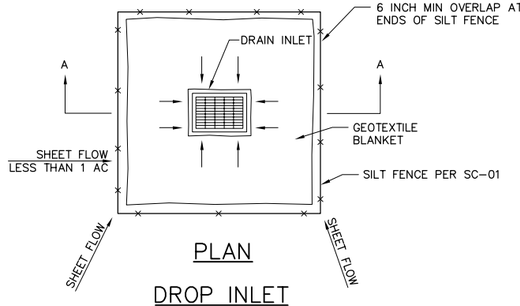
TYPICAL EARTH DIKE
NTS



SECTION A–A



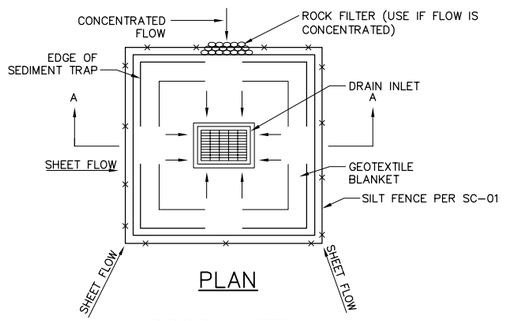
SECTION A–A



PLAN

DROP INLET PROTECTION TYPE 1
NTS

NOTES:
1. FOR USE IN AREAS WHERE GRADING HAS BEEN COMPLETED AND FINAL SOIL STABILIZATION AND SEEDING ARE PENDING.
2. NOT APPLICABLE IN PAVED AREAS.
3. NOT APPLICABLE WITH CONCENTRATED FLOWS.



PLAN

DROP INLET PROTECTION TYPE 2
NTS

NOTES:
1. FOR USE IN CLEARED AND GRUBBED AND IN GRADED AREAS.
2. SHAPE BASIN SO THAT LONGEST INFLOW AREA FACES LONGEST LENGHT OF TRAP.
3. FOR CONCENTRATED FLOWS, SHAPE BASIN IN 2:1 RATIO WITH LENGTH ORIENTED TOWARDS DIRECTION OF FLOW.

PLANS	BY	DATE
DESIGNED	JJL	12/04
CHECKED	KB	12/04
DELINEATED	JJL	12/04

REGISTERED PROFESSIONAL ENGINEER — Registered engineer — No. 123456 — Exp. ____ — CIVIL — STATE OF CALIFORNIA

This Firm Name
This Firm Address

REGISTERED CIVIL ENGINEER ____ DATE

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COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX: 340 N. 1730 E.
CONST. COMPL. ____
FIELD REVISIONS ____

TYPICAL SAN DIEGO COUNTY ROAD
In The Vicinity of
WATER POLLUTION CONTROL DETAILS

SCALE: HOR. NONE VERT. NONE
W.A. R12345 R.S. 1234
SHEET 16 OF 33 SHEETS

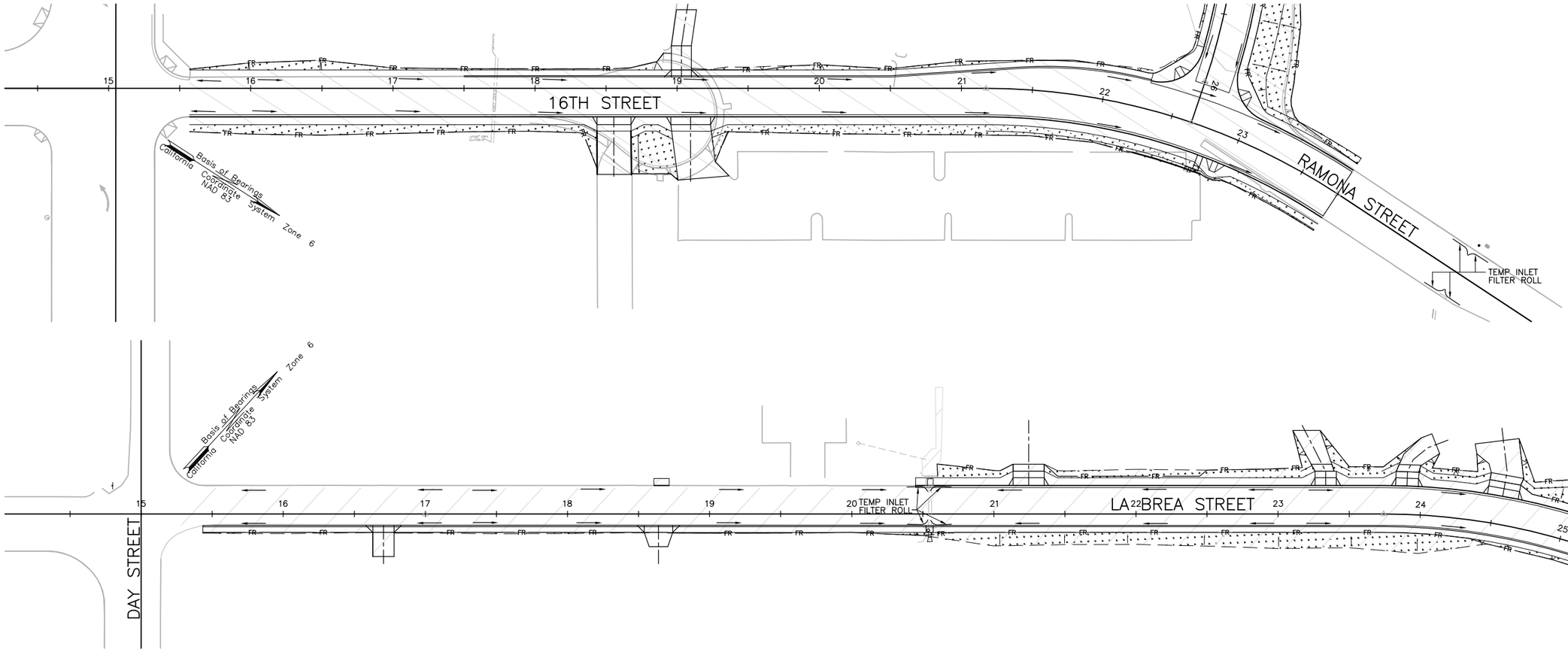
FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

PLANS	BY	DATE
DESIGNED	JJL	12/04
CHECKED	KB	12/04
DELINEATED	JJL	12/04

REGISTERED PROFESSIONAL ENGINEER
Registered engineer
No. 123456
Exp.
CIVIL
STATE OF CALIFORNIA

This Firm Name
This Firm Address

REGISTERED CIVIL ENGINEER DATE



NOTES

1. NO WORK HAVING POTENTIAL TO CAUSE WATER POLLUTION, AS DETERMINED BY THE ENGINEER, SHALL BE PERFORMED UNTIL THE STORM WATER POLLUTION PREVENETION PLAN (SWPPP) HAS BEEN SUBMITTED TO THE ENGINEER BY THE CONTRACTOR, AND APPROVED.
2. THE CONTRACTOR SHALL CONSIDER OTHER CONTROL MEASURES, AS NECESSARY, TO SUPPLEMENT THE CRITICAL TEMPORARY CONTROL MEASURES SHOWN ON THESE PLANS, IN ORDER TO MEET THE POLLUTION CONTROL OBJECTIVES OF THE SWPPP.
3. THE APPROXIMATE TOTAL AREA OF SOIL DISTURBANCE FOR THIS PROJECT IS 1.9 ACRES.

LEGEND

AREA OF POTENTIAL EFFECT (APE)

TEMPORARY FIBER ROLL — FR —

SURFACE FLOW DIRECTION →

SLOPE/DAYLIGHT LINE

EROSION CONTROL (TYPE D)

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
340 N. 1730 E.
CONST. COMPL.
FIELD REVISIONS

TYPICAL SAN DIEGO COUNTY ROAD
In The Vicinity of
WATER POLLUTION CONTROL PLAN

SCALE: HOR. 1"=40' VERT. NONE
W.A. R12345 R.S. 1234
SHEET 12 OF 33 SHEETS

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